

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:00:00 ON 18 NOV 2005

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STRUCTURE FILE UPDATES: 16 NOV 2005 HIGHEST RN 868209-27-2

DICTIONARY FILE UPDATES: 16 NOV 2005 HIGHEST RN 868209-27-2

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TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

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<http://www.cas.org/ONLINE/UG/regprops.html>

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 14:00:02 ON 18 NOV 2005

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FILE COVERS 1907 - 18 Nov 2005 VOL 143 ISS 22

MEI HUANG EIC1700 REM4B28 571-272-3952

FILE LAST UPDATED: 17 Nov 2005 (20051117/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 10:39:30 ON 18 NOV 2005)

FILE 'HCAPLUS' ENTERED AT 10:39:58 ON 18 NOV 2005

E US20040138076/PN

L1 1 S E3
SEL RN

FILE 'REGISTRY' ENTERED AT 10:40:54 ON 18 NOV 2005

L2 28 S E1-28

FILE 'HCAPLUS' ENTERED AT 10:41:17 ON 18 NOV 2005

L3 1 S L1 AND L2

FILE 'STNGUIDE' ENTERED AT 10:44:15 ON 18 NOV 2005

FILE 'LREGISTRY' ENTERED AT 11:16:43 ON 18 NOV 2005

L4 STR

FILE 'REGISTRY' ENTERED AT 11:18:07 ON 18 NOV 2005

L5 50 S L4

L6 STR L4

L7 50 S L6

L8 20903 S L6 FUL
SAV L8 COSTA747/A

L9 STR

FILE 'STNGUIDE' ENTERED AT 11:55:53 ON 18 NOV 2005

FILE 'REGISTRY' ENTERED AT 12:00:53 ON 18 NOV 2005

L10 3407 S L8 AND 1/M

FILE 'STNGUIDE' ENTERED AT 12:02:41 ON 18 NOV 2005

FILE 'REGISTRY' ENTERED AT 12:06:46 ON 18 NOV 2005

L11 2 S L9 SAM SUB=L10

L12 47 S L9 FUL SUB=L10
SAV L12 COSTA747S/A

FILE 'HCAPLUS' ENTERED AT 12:08:44 ON 18 NOV 2005

L13 45 S L12

FILE 'REGISTRY' ENTERED AT 12:11:29 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 12:13:04 ON 18 NOV 2005

FILE 'STNGUIDE' ENTERED AT 12:15:32 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 12:21:19 ON 18 NOV 2005
L14 5658 S L8/D
L15 692 S L14 AND (FOSSIL FUELS/SC)
L16 616 S L15 AND LUBRIC?
L17 317 S L16 AND DETERGENT#
L18 257 S L17 AND (CA OR CALCIUM OR MG OR MAGNESIUM OR EARTH(W)ME
L19 9 S L18 AND STYREN?
L20 472 S L16 AND (CA OR CALCIUM OR MG OR MAGNESIUM OR EARTH(W)M
L21 19 S L20 AND STYREN?
L22 19 S L21 OR L19
L23 0 S L13 AND LUBRIC?
L24 0 S L13 AND (FOSSIL FUELS/SC)

FILE 'STNGUIDE' ENTERED AT 12:41:55 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 12:42:40 ON 18 NOV 2005

FILE 'STNGUIDE' ENTERED AT 12:42:56 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 12:53:13 ON 18 NOV 2005
L25 11 S L13 AND (CA OR CALCIUM OR MG OR MAGNESIUM OR EARTH(W)M

FILE 'STNGUIDE' ENTERED AT 12:56:27 ON 18 NOV 2005

FILE 'REGISTRY' ENTERED AT 13:33:01 ON 18 NOV 2005
E STYRENE/CN
L26 1 S E3
L27 1 S 100-42-5/RN
L28 1 S 7439-95-4/RN
L29 1 S 7440-70-2/RN

FILE 'HCAPLUS' ENTERED AT 13:38:43 ON 18 NOV 2005
L30 15706 S L27/D
L31 79 S L14 AND L30
L32 210546 S L28
L33 362715 S L29
L34 12 S L31 AND (CA OR CALCIUM OR MG OR MAGNESIUM OR L32 OR L33
L35 1 S L34 AND L1
L36 2 S L34 AND LUBRIC?
L37 29 S L34 OR L22
L38 29 S L36 OR L37
L39 11 S L13 AND (CA OR CALCIUM OR MG OR MAGNESIUM OR L32 OR L3

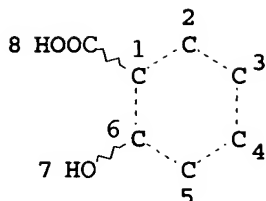
FILE 'STNGUIDE' ENTERED AT 13:55:58 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 13:58:38 ON 18 NOV 2005
L40 40 S L38 OR L39
SET COST OFF

FILE 'REGISTRY' ENTERED AT 14:00:00 ON 18 NOV 2005

FILE 'HCAPLUS' ENTERED AT 14:00:02 ON 18 NOV 2005

=> d l38 que stat
L6 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L8 20903 SEA FILE=REGISTRY SSS FUL L6
 L14 5658 SEA FILE=HCAPLUS L8/D
 L15 692 SEA FILE=HCAPLUS L14 AND (FOSSIL FUELS/SC)
 L16 616 SEA FILE=HCAPLUS L15 AND LUBRIC?
 L17 317 SEA FILE=HCAPLUS L16 AND DETERGENT#
 L18 257 SEA FILE=HCAPLUS L17 AND (CA OR CALCIUM OR MG OR
 MAGNESIUM OR EARTH(W)METAL#)
 L19 9 SEA FILE=HCAPLUS L18 AND STYREN?
 L20 472 SEA FILE=HCAPLUS L16 AND (CA OR CALCIUM OR MG OR
 MAGNESIUM OR EARTH(W)METAL#)
 L21 19 SEA FILE=HCAPLUS L20 AND STYREN?
 L22 19 SEA FILE=HCAPLUS L21 OR L19
 L27 1 SEA FILE=REGISTRY 100-42-5/RN → Styrene
 L28 1 SEA FILE=REGISTRY 7439-95-4/RN → Mg
 L29 1 SEA FILE=REGISTRY 7440-70-2/RN → Ca
 L30 15706 SEA FILE=HCAPLUS L27/D
 L31 79 SEA FILE=HCAPLUS L14 AND L30
 L32 210546 SEA FILE=HCAPLUS L28 → Mg
 L33 362715 SEA FILE=HCAPLUS L29 → Ca
 L34 12 SEA FILE=HCAPLUS L31 AND (CA OR CALCIUM OR MG OR
 MAGNESIUM OR L32 OR L33 OR EARTH(W)METAL#)
 L36 2 SEA FILE=HCAPLUS L34 AND LUBRIC?
 L37 29 SEA FILE=HCAPLUS L34 OR L22
 L38 29 SEA FILE=HCAPLUS L36 OR L37

=> d l38 ibib abs hitstr ind 1-29

29 answers from Structure of benzoic acid & combining
 w/ Styrene as a derivate.

L38 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:592089 HCAPLUS
 DOCUMENT NUMBER: 143:117790
 TITLE: Metal salts of substituted hydrocarbylphenols as
 sulfur-free and phosphorus-free
 lubricating oil dispersants
 INVENTOR(S): Friend, Christopher L.; McAtee, Rodney J.;
 Sutton, Michael Robert; Cressey, David
 PATENT ASSIGNEE(S): The Lubrizol Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005148477	A1	20050707	US 2004-751809	20040105
WO 2005068590	A1	20050728	WO 2004-US42758	20041217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-751809 A 20040105

OTHER SOURCE(S): MARPAT 143:117790

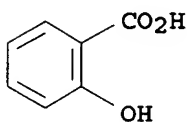
AB A zinc dialkyldithiophosphate-free lubricating oil contains: (1) a low-sulfur (<0.5 wt.%) metal salixarate, (2) ≥1 additive, selected from antioxidants, friction modifiers, dispersants, viscosity modifiers, a dispersant modifier, and an antiwear additive other than a metal dithiophosphate, and (3) a base oil contg. ≤400 ppm of phosphorus derived from a metal dithiophosphate. The metal salixarate has one or more Ph rings substituted by -OH, hydrocarbyl groups, -NH₂, -NHR₁, -N(R₁)₂, and -CO₂H, and can include methylene-bridged polyphenols, in which the metal salt is an alkali metal or alk. earth metal salt. Suitable additives can include a N-substituted long-chain alkenylsuccinimide (as the detergent), diphenylamine derivs. and hindered phenols (as the antioxidants), a monoester of a polyol and an aliph. carboxylic acid (as the friction modifier), olefin copolymers and ethylene-olefin copolymers (as the viscosity modifier). and functionalized olefin polymers and copolymers (as the dispersant-viscosity modifier).

IT 100-42-5D, Styrene, polymers with unsatd. anhydrides, reaction products with amines
 RL: MOA (Modifier or additive use); USES (Uses)
 (dispersant-viscosity modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)

RN 100-42-5 HCAPLUS
CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



IT 69-72-7D, Salicylic acid, reaction products with formaldehyde and polyisobutenylphenol, calcium salts
7439-95-4D, Magnesium, salts with reaction products of polyisobutenylphenol, formaldehyde, and salicylic acid
7440-70-2D, Calcium, salts with reaction products of polyisobutenylphenol, formaldehyde, and salicylic acid
RL: MOA (Modifier or additive use); USES (Uses)
(dispersants; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
RN 69-72-7 HCAPLUS
CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

IC ICM C10M141-12
INCL 508291000; 508479000
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
ST phosphorus sulfur free lubricating oil; metal polyisobutenylphenol salt lubricating oil dispersant; calcium salixarate phosphorus free lubricating oil dispersant
IT Lubricating oil additives
(antioxidants; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
IT Lubricating oil additives
(dispersants; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)

- dispersants)
- IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(esters, friction modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT Phenols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hindered, antioxidants; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT Alkenes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polymers with ethylene, viscosity modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(reaction products, with polymers of unsatd. anhydrides and carboxylic acids; dispersant-viscosity modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT Anhydrides
RL: MOA (Modifier or additive use); USES (Uses)
(unsatd., graft polymers with olefins, reaction products with amines; dispersant-viscosity modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT 122-39-4, Diphenylamine, uses 122-39-4D, Diphenylamine, alkyl derivs.
RL: MOA (Modifier or additive use); USES (Uses)
(antioxidant; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT 123-56-8D, Succinimide, N-polyisobutenyl derivs.
RL: MOA (Modifier or additive use); USES (Uses)
(detergents; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT 100-42-5D, Styrene, polymers with unsatd. anhydrides, reaction products with amines 25087-26-7D, Polymethacrylic acid, reaction products with amines
RL: MOA (Modifier or additive use); USES (Uses)
(dispersant-viscosity modifiers; metal salts of substituted hydrocarbylphenols as sulfur-free and phosphorus-free lubricating oil dispersants)
- IT 50-00-0D, Formaldehyde, reaction products with salicylic acid and polyisobutenylphenol, calcium salts 69-72-7D, Salicylic acid, reaction products with formaldehyde and polyisobutenylphenol, calcium salts 108-95-2D, Phenol, polyisobutenyl derivs., calcium salts, reaction products with formaldehyde and salicylic acid 7439-95-4D, Magnesium, salts with reaction products of polyisobutenylphenol, formaldehyde, and salicylic acid 7440-09-7D, Potassium, salts with reaction products of polyisobutenylphenol, formaldehyde, and salicylic acid 7440-70-2D,

Calcium, salts with reaction products of
polyisobutenylphenol, formaldehyde, and salicylic acid
RL: MOA (Modifier or additive use); USES (Uses)
(dispersants; metal salts of substituted hydrocarbylphenols as
sulfur-free and phosphorus-free lubricating oil
dispersants)

IT 74-85-1D, Ethylene, polymers with α -olefins
RL: MOA (Modifier or additive use); USES (Uses)
(viscosity modifiers; metal salts of substituted
hydrocarbylphenols as sulfur-free and phosphorus-free
lubricating oil dispersants)

L38 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:473121 HCAPLUS
DOCUMENT NUMBER: 141:37882
TITLE: Compositions and methods for nutrition
supplementation
INVENTOR(S): Giordano, John A.; Balzer, Charles
PATENT ASSIGNEE(S): Everett Laboratories, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004109901	A1	20040610	US 2002-315159	20021210
US 6814983	B2	20041109		
WO 2004052295	A2	20040624	WO 2003-US39022	20031209
WO 2004052295	A3	20040916		
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW	
RW:			BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
EP 1581200	A2	20051005	EP 2003-812872	20031209
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
US 2004166175	A1	20040826	US 2004-790027	

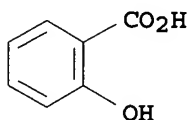
PRIORITY APPLN. INFO.: US 2002-315159 A 20040302
20021210
WO 2003-US39022 W 20031209

AB The present invention relates to compns. comprising various vitamins and minerals and methods for using these compns. for nutritional supplementation in, for example, pregnant or lactating subjects.

IT 69-72-7D, Salicylic acid, benzophenyl(sic) derivs.
100-42-5D, Styrene, polymers contg.
RL: FFD (Food or feed use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. and methods for nutrition supplementation)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 100-42-5 HCAPLUS

CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

H₂C=CH-Ph

IT 7439-95-4, Magnesium, biological studies
7440-70-2, Calcium, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. and methods for nutrition supplementation)

RN 7439-95-4 HCAPLUS

CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-70-2 HCAPLUS

CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

IC ICM A61K038-16
ICS A61K038-17; A61K031-355; A61K033-26; A61K033-34; A61K033-32

INCL 424638000; 424643000; 424646000; 514006000; 514012000; 514168000;
514458000; 514474000

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 18, 63

ST vitamin nutritional supplement mineral pregnancy lactation

IT pH
(-sensitive delivery forms; compns. and methods for nutrition
supplementation)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(25-hydroxyvitamin D-binding; compns. and methods for nutrition
supplementation)

IT Apolipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(A-I; compns. and methods for nutrition supplementation)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MBP (maltose-binding protein); compns. and methods for nutrition
supplementation)

IT Adhesives
(biol.; compns. and methods for nutrition supplementation)

IT Drug delivery systems
(capsules; compns. and methods for nutrition supplementation)

IT Drug delivery systems
Drug delivery systems
(carriers; compns. and methods for nutrition supplementation)

IT Intestine
(colon, pH of; compns. and methods for nutrition supplementation)

IT Beeswax
Disease, animal
Drugs
Human
Hydrocolloids
Imaging agents
Lactation
Pregnancy
Preservatives
Stress, biological
Surfactants
(compns. and methods for nutrition supplementation)

IT Calmodulins
Ferritins
Lactoferrins
Transthyretin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(compns. and methods for nutrition supplementation)

IT Antibodies and Immunoglobulins
Candelilla wax
Cardiolipins
Carnauba wax
Fats and Glyceridic oils, biological studies
Glutens
Glycerides, biological studies
Isoprenoids
Keratins
Lipids, biological studies

Phosphatidic acids
Phosphatidylcholines, biological studies
Phosphatidylethanolamines, biological studies
Phosphatidylglycerols
Phosphatidylinositols
Phosphatidylserines
Phospholipids, biological studies
Polyamides, biological studies
Polyesters, biological studies
Polysaccharides, biological studies
Shellac
Sphingolipids
Terpenes, biological studies
Tocopherols
Vitamins
Waxes
RL: FFD (Food or feed use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for nutrition supplementation)
IT Hormones, animal, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(compns. and methods for nutrition supplementation)
IT Imaging agents
(contrast; compns. and methods for nutrition supplementation)
IT Drug delivery systems
(controlled-release; compns. and methods for nutrition supplementation)
IT Polyoxyalkylenes, biological studies
RL: FFD (Food or feed use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(derivs.; compns. and methods for nutrition supplementation)
IT Diglycerides
RL: FFD (Food or feed use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digalactosyl; compns. and methods for nutrition supplementation)
IT Embryo, animal
(fetus; compns. and methods for nutrition supplementation)
IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high-d.; compns. and methods for nutrition supplementation)
IT Drug delivery systems
(injections; compns. and methods for nutrition supplementation)
IT Drug delivery systems
(nanospheres; compns. and methods for nutrition supplementation)
IT Drug delivery systems
(pH-sensitive; compns. and methods for nutrition supplementation)
IT Glycolipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(phosphatidylinositol-contg., FBP (folate-binding protein); compns. and methods for nutrition supplementation)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(retinol-binding; compns. and methods for nutrition supplementation)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(riboflavin-binding; compns. and methods for nutrition
supplementation)

IT Drug delivery systems
(salt-sensitive; compns. and methods for nutrition
supplementation)

IT Intestine
(small, pH of; compns. and methods for nutrition supplementation)

IT Diet
Diet
(supplements; compns. and methods for nutrition supplementation)

IT Drug delivery systems
(tablets; compns. and methods for nutrition supplementation)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tocopherol-binding; compns. and methods for nutrition
supplementation)

IT Blood plasma
(vol.; compns. and methods for nutrition supplementation)

IT 7727-43-7, Barium sulfate
RL: DGN (Diagnostic use); PEP (Physical, engineering or chemical
process); PYP (Physical process); THU (Therapeutic use); BIOL
(Biological study); PROC (Process); USES (Uses)
(compns. and methods for nutrition supplementation)

IT 57-88-5, Cholesterol, biological studies 69-72-7D,
Salicylic acid, benzophenyl(sic) derivs. 79-06-1D, Acrylamide,
derivs., polymers 79-10-7D, Acrylic acid, derivs., polymers
79-41-4, Methacrylic acid, biological studies 88-99-3D, Phthalic
acid, derivs., polymers contg. 100-42-5D, Styrene,
polymers contg. 108-05-4, Vinyl acetate, biological studies
108-05-4D, Vinyl acetate, polymers contg. 110-16-7D, Maleic acid,
polymers contg. 112-80-1, Oleic acid, biological studies
118-55-8, Salol 124-30-1, Stearylamine 143-07-7, Lauric acid,
biological studies 373-49-9, Palmitoleic acid 544-64-9,
Myristoleic acid 544-66-1, Phytosteric acid 593-39-5,
Petroselinic acid 1256-86-6, Cholesterol sulfate 1510-21-0,
Cholesterol hemisuccinate 3724-65-0D, Crotonic acid, copolymers
4539-70-2, Distearoylphosphatidylcholine 9003-39-8, Polyvinyl
pyrrolidone 9004-34-6D, Cellulose, oxidn. products 9004-38-0,
Cellulose acetate phthalate 9004-61-9, Hyaluronic acid
9005-32-7, Alginate acid 9006-26-2, Ethylene maleic anhydride
copolymer 9011-16-9, Methyl vinyl ether maleic anhydride copolymer
9012-76-4, Chitosan 9032-50-2, Methylcellulose phthalate
9050-31-1, Hydroxypropyl methylcellulose phthalate 18656-38-7,
Dimyristoylphosphatidylcholine 18656-40-1,
Dilauroylphosphatidylcholine 24529-88-2 25085-34-1,
Styrene-acrylic acid copolymer 25300-64-5, Styrene-maleic acid
copolymer 25322-68-3D, Polyethylene oxide, derivs. 29385-00-0,
Isolauric acid 30399-84-9, Isostearic acid 32844-67-0,
Isopalmitic acid 37324-30-4, Hydroxy propyl cellulose phthalate
52907-01-4, Cellulose acetate trimellitate 53237-50-6
56509-23-0, Sodium cellulose acetate phthalate 64792-89-8,
Dibehenoylphosphatidylcholine 65437-21-0, Isomyristic acid
67896-63-3, Dipentadecanoylphosphatidylcholine 68354-99-4
68737-67-7, Dioleoylphosphatidylcholine 71138-97-1,

Hydroxypropylmethyl cellulose acetate succinate 76822-97-4
78543-25-6, 1-Hexadecyl-2-palmitoylglycerophosphoethanolamine
83172-32-1, Ditricosanoylphosphatidylcholine 83554-62-5
88527-84-8, Amylose acetate phthalate 96299-43-3 96352-13-5,
Hydroxypropyl ethylcellulose phthalate 108032-13-9 127512-30-5
129385-16-6 129385-17-7 154897-15-1,
Dilignoceroylphosphatidylcholine 161441-83-4 252856-84-1,
Polyvinyl acetate hydrogen phthalate 676259-03-3
RL: FFD (Food or feed use); MOA (Modifier or additive use); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(comps. and methods for nutrition supplementation)
IT 50-81-7, Ascorbic acid, biological studies 58-56-0, Pyridoxine
hydrochloride 59-30-3, Folic acid, biological studies 59-43-8,
Vitamin b1, biological studies 59-67-6, Niacin, biological studies
67-97-0, Cholecalciferol 68-19-9, Vitamin b12 83-88-5,
Riboflavin, biological studies 141-01-5, Ferrous fumarate
471-34-1, Calcium carbonate, biological studies
532-43-4, Thiamine mononitrate 1309-48-4, Magnesium
oxide, biological studies 1314-13-2, Zinc oxide, biological
studies 1344-70-3, Copper oxide 1406-16-2, Vitamin d
1406-18-4, Vitamin e 7235-40-7, β Carotene 7439-89-6, Iron,
biological studies 7439-95-4, Magnesium,
biological studies 7440-50-8, Copper, biological studies
7440-66-6, Zinc, biological studies 7440-70-2,
Calcium, biological studies 8059-24-3, Vitamin b6
11103-57-4, Vitamin a 12001-76-2, Vitamin b 52225-20-4,
dl- α -Tocopherol acetate
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(comps. and methods for nutrition supplementation)
IT 90-82-4, Pseudoephedrine 83905-01-5, Azithromycin
RL: PEP (Physical, engineering or chemical process); PYP (Physical
process); THU (Therapeutic use); BIOL (Biological study); PROC
(Process); USES (Uses)
(comps. and methods for nutrition supplementation)
IT 7732-18-5, Water, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comps. and methods for nutrition supplementation)
REFERENCE COUNT: 102 THERE ARE 102 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L38 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:80817 HCAPLUS

DOCUMENT NUMBER: 140:148877

TITLE: Overbased styrenated alkaline
earth metal salicylates as
lubricating oil detergents for
engine oils

INVENTOR(S): Muir, Ronald J.; Olson, William D.

PATENT ASSIGNEE(S): Crompton Corporation, USA

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

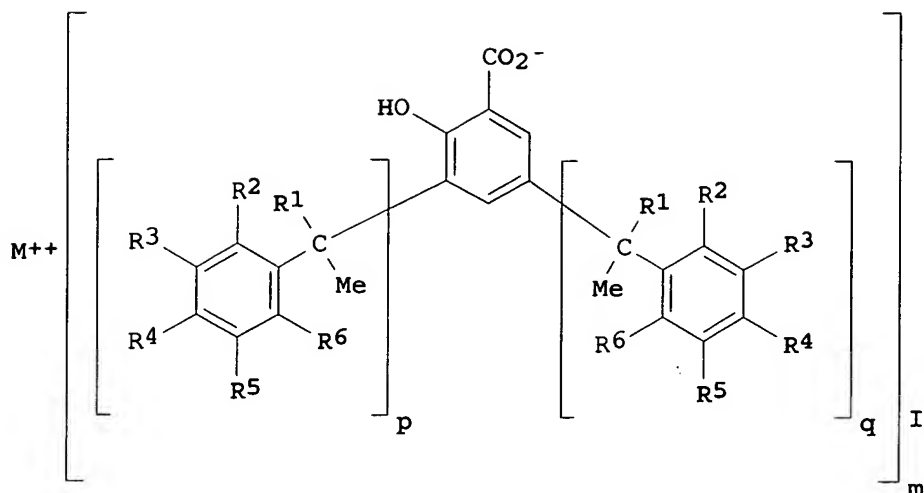
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009747	A1	20040129	WO 2003-US23321	20030722
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004138076	A1	20040715	US 2003-626747	20030722
EP 1523540	A1	20050420	EP 2003-766030	20030722
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005533895	T2	20051110	JP 2004-523406	20030722
PRIORITY APPLN. INFO.:				
			US 2002-397676P	P 20020723
			WO 2003-US23321	W 20030722
OTHER SOURCE(S):				
GI		MARPAT 140:148877		



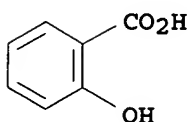
AB **Styrenated salicylic acid-type overbased detergents** for engine lubricating oils are of general structure I, in which R1 = H, substituted or unsubstituted alkyl, and substituted or unsubstituted aryl; Ar is Ph or Ph substituted with single or multiple phenylethyl or other groups, m = 2; p, q ≥ 0 (and p + q ≥ 8); and M is an alk.

earth metal (preferably Ca and Mg). I is prepd. by acid-catalyzed alkylation (with or without oligomerization) of salicylic acid with **styrene** or substituted **styrenes** (e.g., C1-4-alkylstyrenes, 4-cyclohexylstyrene, dimethylstyrenes, α-C1-4-alkylstyrenes, C1-2-alkoxystyrenes, 4-phenylstyrene, and 4-fluorostyrene). Such I **detergents** have a total base no. of 60-350 mg KOH/g.

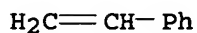
IT 69-72-7DP, **styrenated, calcium and magnesium salts** 100-42-5DP, **Styrene**, alkylation products with salicylic acid, **calcium and magnesium salts** 7439-95-4DP, **Magnesium**, salts with **styrenated salicylic acid** 7440-70-2DP, **Calcium**, salts with **styrenated salicylic acid**
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (overbased; **styrenated alk. earth metal salicylates** as lubricating oil **detergents** for engine oils)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 100-42-5 HCAPLUS
 CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



RN 7439-95-4 HCAPLUS
 CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-70-2 HCAPLUS
 CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

IC ICM C10M159-22
 ICS C07C051-41; C10N030-06; C10N040-25
 CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
 ST overbased **styrenated** salicylate lubricating oil detergent; alkylation salicylate overbased lubricating oil detergent; oligomerization alkylation overbased lubricating oil detergent
 IT Alkylation
 (aralkylation, catalysts, for salicylic acid; overbased **styrenated** alk. **earth metal** salicylates as lubricating oil detergents for engine oils)
 IT Alkylation catalysts
 (arylalkylation catalysts, for salicylic acid; overbased **styrenated** alk. **earth metal** salicylates as lubricating oil detergents for engine oils)
 IT Alkylation
 (arylalkylation, of salicylic acid; overbased **styrenated** alk. **earth metal** salicylates as lubricating oil detergents for engine oils)
 IT Lubricating oil additives
 (detergents; overbased **styrenated** alk. **earth metal** salicylates as lubricating oil detergents for engine oils)
 IT 104-15-4, p-Toluenesulfonic acid, uses
 RL: CAT (Catalyst use); USES (Uses)
 (alkylation catalyst; overbased **styrenated** alk. **earth metal** salicylates as lubricating oil detergents for engine oils)
 IT 9003-53-6DP, Polystyrene, salicylic acid-terminated, alk. **earth metal** salts
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

(oligomeric, overbased; styrenated alk. earth
metal salicylates as lubricating oil
detergents for engine oils)

IT 69-72-7DP, styrenated, calcium and
magnesium salts 98-83-9DP, α -Methylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 100-42-5DP, Styrene,
alkylation products with salicylic acid, calcium and
magnesium salts 100-80-1DP, 3-Methylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 405-99-2DP, 4-Fluorostyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 611-15-4DP, 2-Methylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 622-97-9DP, 4-Methylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 626-20-0DP, 3-Methoxystyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 637-69-4DP, 4-Methoxystyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 1746-23-2DP, 4-tert-Butylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 2039-89-6DP, 2,5-Dimethylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 2039-93-2DP, α -Ethylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 2055-40-5DP, 4-Isopropylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 2234-20-0DP, 2,4-Dimethylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 2350-89-2DP, 4-Phenylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 3454-07-7DP, 4-Ethylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 5459-40-5DP, 4-Ethoxystyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 7439-95-4DP, Magnesium,
salts with styrenated salicylic acid 7440-70-2DP
, Calcium, salts with styrenated salicylic acid
7564-63-8DP, 2-Ethylstyrene, alkylation products with salicylic
acid, calcium and magnesium salts
13020-34-3DP, 4-Cyclohexylstyrene, alkylation products with
salicylic acid, calcium and magnesium salts
19789-34-5DP, Benzene, 1-ethenyl-3-(1-methylethyl)-, alkylation
products with salicylic acid, calcium and
magnesium salts 20826-80-6DP, α -Butylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 26206-42-8DP, 4-Butylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts 38212-14-5DP, α -Isobutylstyrene,
alkylation products with salicylic acid, calcium and
magnesium salts 46745-66-8DP, 4-Octylstyrene, alkylation
products with salicylic acid, calcium and
magnesium salts
RL: MOA (Modifier or additive use); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)
 (overbased; styrenated alk. earth
 metal salicylates as lubricating oil
 detergents for engine oils)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN
 THE RE FORMAT

L38 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:912828 HCAPLUS
 DOCUMENT NUMBER: 139:383815
 TITLE: Cyclic oligomer traction fluid
 INVENTOR(S): Bartley, Stuart L.; Barr, Douglas M.; Lange,
 Richard M.; Tipton, Craig D.
 PATENT ASSIGNEE(S): The Lubrizol Corporation, USA
 SOURCE: U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003216264	A1	20031120	US 2002-147238	20020516
CA 2485958	AA	20031127	CA 2003-2485958	20030411
WO 2003097773	A1	20031127	WO 2003-US11086	20030411
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1507840	A1	20050223	EP 2003-721617	20030411
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005526172	T2	20050902	JP 2004-506432	20030411
PRIORITY APPLN. INFO.:				200205
				A

16

WO 2003-US11086

W

200304

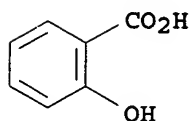
11

AB Cyclic oligomers derivable from the copolymn. of isobutylene and isoprene can be hydrogenated to form 1-(2,2,4-trimethylpentyl)-2-isopropyl-3,3,5,5-tetramethylcyclohexane and related compds., which are useful in **lubricants** such as a traction fluids.

IT **824-35-1D, Calcium salicylate, derivs.**
RL: MOA (Modifier or additive use); USES (Uses)
(cyclic satd. oligomer traction fluid)

RN 824-35-1 HCAPLUS

CN Benzoic acid, 2-hydroxy-, calcium salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Ca

IC ICM C10M105-04
ICS C07C013-18

INCL 508110000; 585020000; 252073000

CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
Section cross-reference(s): 35, 39

ST cyclic oligomer traction fluid **lubricant**
lubricating oil base hydrogenated; isoprene isobutene copolymer olefin **lubricant** alkylstyrene dimer hydrogenated oligomerization

IT Hydrocarbons, uses
RL: IMF (Industrial manufacture); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(alicyclic, C13-C33, Pr and isopropyl- group contg.; cyclic satd. oligomer traction fluid)

IT Esters, uses
Hydrocarbons, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(alicyclic- contg.; cyclic satd. oligomer traction fluid)

IT Polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(alkene polymers and copolymers; cyclic satd. oligomer traction fluid)

IT **Lubricating** oil additives
(antifriction; cyclic satd. oligomer traction fluid)

IT **Lubricating** oil additives
(antioxidants; cyclic satd. oligomer traction fluid)

IT Lubricating oil additives
(antiwear; cyclic satd. oligomer traction fluid)

IT Lubricating oils
(base oils; cyclic satd. oligomer traction fluid)

IT Alkenes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(branched, C4-C6; cyclic satd. oligomer traction fluid)

IT Friction
Hydraulic fluids
Hydrogenation
Lubricants
(cyclic satd. oligomer traction fluid)

IT Lewis acids
RL: CAT (Catalyst use); USES (Uses)
(cyclic satd. oligomer traction fluid)

IT Oligomers
RL: PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cyclic satd. oligomer traction fluid)

IT Hydrocarbon oils
RL: TEM (Technical or engineered material use); USES (Uses)
(cyclic satd. oligomer traction fluid)

IT Lubricating oil additives
(detergents; cyclic satd. oligomer traction fluid)

IT Lubricating oil additives
(dispersants; cyclic satd. oligomer traction fluid)

IT Phosphites
RL: MOA (Modifier or additive use); USES (Uses)
(hydrogen phosphite, dialkyl O-esters; cyclic satd. oligomer traction fluid)

IT Polyolefins
RL: PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hydrogenated cyclic olefins; cyclic satd. oligomer traction fluid)

IT Distillation
(of cyclic oligomer from polymers and oligomer mixt.; cyclic satd. oligomer traction fluid)

IT Polymerization
Polymerization catalysts
(oligomerization; cyclic satd. oligomer traction fluid)

IT Sulfonic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(salts, calcium salts; cyclic satd. oligomer traction fluid)

IT Swelling agents
(seal swell; cyclic satd. oligomer traction fluid)

IT Diatomite
RL: CAT (Catalyst use); USES (Uses)
(support; cyclic satd. oligomer traction fluid)

IT Lubricating oil additives
(viscosity improvers; cyclic satd. oligomer traction fluid)

IT 7440-02-0, Nickel, uses 7446-70-0, Aluminum trichloride, uses
RL: CAT (Catalyst use); USES (Uses)

- (cyclic satd. oligomer traction fluid)
- IT 123-56-8D, Succinimide, derivs., borated and nonborated
824-35-1D, Calcium salicylate, derivs.
7664-38-2, Phosphoric acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(cyclic satd. oligomer traction fluid)
- IT 25087-26-7D, Polymethacrylic acid, esters
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(cyclic satd. oligomer traction fluid)
- IT 623938-93-2P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(cyclic satd. oligomer traction fluid)
- IT 78-79-5, Isoprene, reactions 115-11-7, Isobutylene, reactions 1333-74-0, Hydrogen, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclic satd. oligomer traction fluid)
- IT 696-29-7D, Isopropylcyclohexane, di- to hexamethyl, branched C4-C12 alkyl derivs. 1678-92-8D, Propylcyclohexane, di- to hexamethyl, branched C4-C12 alkyl derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(cyclic satd. oligomer traction fluid)
- IT 41851-35-8D, 1,3-Dicyclohexyl butane, C1-C4 1- mono and 1,3-dialkyl derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(hydrogenated alpha-alkyl styrene dimer; cyclic satd. oligomer traction fluid)
- IT 623938-92-1P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(picture (II); cyclic satd. oligomer traction fluid)
- IT 9010-85-9P, Isobutylene-isoprene copolymer
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(polymer and cyclic oligomers, including C13 and C21; cyclic satd. oligomer traction fluid)

L38 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:297607 HCAPLUS

DOCUMENT NUMBER: 138:308959

TITLE: Compositions for giving the skin a natural
suntan coloration based on Monascus-type
pigments

INVENTOR(S): Forestier, Serge; Candau, Didier; Seyler,
Nathalie; Elguidj, Irene

PATENT ASSIGNEE(S): L'Oreal, Fr.

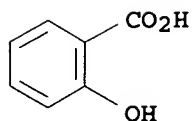
SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1302199	A2	20030416	EP 2002-292395	20020927
EP 1302199	A3	20040728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
FR 2830755	A1	20030418	FR 2001-13334	20011016
FR 2830755	B1	20041008		
FR 2830756	A1	20030418	FR 2001-13335	20011016
FR 2830756	B1	20050211		
FR 2830757	A1	20030418	FR 2001-13336	20011016
FR 2830757	B1	20041008		
US 2003133887	A1	20030717	US 2002-270530	20021016
US 6740313	B2	20040525		
PRIORITY APPLN. INFO.:			FR 2001-13334	A 20011016
			FR 2001-13335	A 20011016
			FR 2001-13336	A 20011016
OTHER SOURCE(S): MARPAT 138:308959				
AB	Cosmetic compns. for giving the skin a natural suntan coloration based on Monascus-type pigments are claimed. A cosmetic compn. contained Monascus anka pigment 1.00, abs. ethanol 49.50, propylene glycol 24.75, and water 24.75 g.			
IT	69-72-7D, Salicylic acid, derivs. 100-42-5D, Styrene, alkyl derivs.			
RL:	COS (Cosmetic use); BIOL (Biological study); USES (Uses) (compns. for giving skin natural suntan coloration based on Monascus-type pigments)			
RN	69-72-7 HCAPLUS			
CN	Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)			



RN 100-42-5 HCAPLUS
 CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

IC ICM A61K007-48
 ICS A61K007-42
 CC 62-4 (Essential Oils and Cosmetics)
 ST cosmetic suntan Monascus pigment dihydroxyacetone
 IT Monascus
 Monascus anka
 Monascus major
 Monascus purpureus
 Monascus ruber
 Monascus rubiginosus
 Pigments, biological
 Sunburn
 UV radiation
 (compns. for giving skin natural suntan coloration based on Monascus-type pigments)
 IT Fibroin
 Oxides (inorganic), biological studies
 Polysiloxanes, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (compns. for giving skin natural suntan coloration based on Monascus-type pigments)
 IT Solvents
 (org.; compns. for giving skin natural suntan coloration based on Monascus-type pigments)
 IT 50-71-5, Alloxane 51-17-2D, Benzimidazole, derivs. 56-82-6, Glyceraldehyde 59-98-3D, Benzazoline, derivs. 68-26-8, Retinol 69-72-7D, Salicylic acid, derivs. 76-22-2D, Camphor, derivs. 91-56-5, Isatine 95-14-7D, 1H-Benzotriazole, derivs. 96-26-4, Dihydroxyacetone 100-42-5D, Styrene, alkyl derivs. 106-99-0D, Butadiene, alkyl-aryl derivs. 111-30-8, Glutaraldehyde 118-60-5, 2-Ethylhexyl Salicylate 118-92-3 119-61-9D, Benzophenone, derivs. 120-46-7D, Dibenzoylmethane, derivs. 131-57-7, Benzophenone-3 290-87-9D, 1,3,5-Triazine, derivs. 485-47-2, Ninhydrin 504-75-6D, Imidazoline, derivs. 514-66-9, Rubropunctamine 616-75-1D, derivs. 621-82-9D, Cinnamic acid, derivs. 937-41-7D, Phenylacrylate, derivs. 1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconium oxide, biological studies 1332-37-2, Iron oxide, biological studies 1335-30-4, Aluminum silicate 1343-88-0, Magnesium silicate 3627-51-8, Monascorubramine 4065-45-6, Benzophenone-4 4744-65-4D, Pyrazoline-4,5-dione, derivs. 5466-77-3, Octyl Methoxycinnamate 6197-30-4, Octocrylene 6628-37-1,

Benzophenone-5 9050-36-6, Maltodextrin 11129-18-3, Cerium oxide
 13463-67-7, Titanium Oxide, biological studies 18509-48-3D,
 derivs. 27503-81-7, Phenylbenzimidazole Sulfonic Acid 36861-47-9
 40031-31-0, Erythrulose 58066-70-9, Mesotartaric aldehyde
 58087-02-8D, derivs. 70356-09-1, -Butyl Methoxydibenzoylmethane
 88122-99-0, Octyl triazone 92761-26-7 103597-45-1 145941-62-4
 154702-15-5, -Diethylhexyl Butamido Triazone 155633-54-8,
 Drometrizole Trisiloxane 191419-26-8, Anisotriazine 302776-68-7
 363602-15-7 373604-51-4D, derivs. 509087-92-7 509087-93-8
 509087-95-0

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (comps. for giving skin natural suntan coloration based on
 Monascus-type pigments)

L38 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:221781 HCAPLUS

DOCUMENT NUMBER: 138:257653

TITLE: **Lubricating** oil composition containing
 phenol-formaldehyde condensate
detergents

INVENTOR(S): Carrick, Virginia A.; Lamb, Gordon D.; Bardasz,
 Ewa A.; Abraham, William D.

PATENT ASSIGNEE(S): The Lubrizol Corporation, USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022963	A1	20030320	WO 2002-US26553	200208 21
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 6583092	B1	20030624	US 2001-954669	200109 12
CA 2458043	AA	20030320	CA 2002-2458043	200208 21
EP 1427800	A1	20040616	EP 2002-759418	200208 21
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005502765	T2	20050127	JP 2003-527028	

OTHER SOURCE(S) : MARPAT 138:257653

IT 69-72-7D, Salicylic acid, alkyl derivs., neutral and alkali
or alk. earth metal salts

RN 69-72-7 HCAPLUS

RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
PREP (Preparation); USES (Uses)
(lubricating oil compn. contg. phenol-formaldehyde
condensate detergents)

RN 69-72-7 HCAPLUS

IC ICM C10M169-04
ICS C10M169-04; C10M101-02; C10M129-14; C10M129-54; C10M129-76;
C10M133-12; C10M133-52; C10M133-56; C10M135-06; C10M137-10;
C10M139-00; C10M143-10; C10M143-12; C10M145-14; C10M145-16;
C10M145-20; C10M155-02; C10M159-22; C10N030-00

CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)

ST **lubricating** oil additive metal salt phenol formaldehyde oligomer condensate; saligenin formaldehyde salicylic acid salt **detergent** additive dithiophosphate dispersant

IT Hydrocarbon oils
RL: TEM (Technical or engineered material use); USES (Uses)
(100N, 200N; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oil additives
(antifriction-antiwear; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oil additives
(antioxidants-corrosion inhibitors; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oils
(base oils, paraffinic; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oils
(crankcase; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT Phenols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(derivs., calcium salt; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oil additives
(**detergents**, overbased; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT Polysiloxanes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(di-Me, antifoam; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oil additives
(dispersants, ashless; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT **Lubricating** oil additives
(dispersants-viscosity index improvers; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT Phenols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hindered, C4- esters with; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

IT Isoprene rubber, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hydrogenated, hydrogenated polyisoprene; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)

- IT Pour-point depressants
(**lubricating** oil additives; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Antifoaming agents
Lubricating oil additives
Lubricating oils
(**lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Alkali metal salts
Alkaline earth salts
Borates
RL: MOA (Modifier or additive use); USES (Uses)
(**lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Polyolefins
RL: MOA (Modifier or additive use); USES (Uses)
(maleated, reaction products with alc. or amine; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Phosphates, uses
RL: MOA (Modifier or additive use); USES (Uses)
(metal salts; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Acrylic polymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(nitrogen-contg.; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Phenolic resins, uses
RL: MOA (Modifier or additive use); USES (Uses)
(oligomeric, aldehyde-terminated, **calcium** or **magnesium** salts; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Phenolic resins, uses
RL: MOA (Modifier or additive use); USES (Uses)
(oligomeric, aldehyde-terminated; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Stability
(oxidative, of oil formulations; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT Polyamines
RL: MOA (Modifier or additive use); USES (Uses)
(polyethylene-, reaction products, reaction products with polyisobutenyl succinic anhydride derivs. and other acylating agents; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT **Lubricating** oil additives
(pour-point depressants; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane
RL: MOA (Modifier or additive use); USES (Uses)
(antifoam; **lubricating** oil compn. contg. phenol-formaldehyde condensate **detergents**)
- IT 502620-03-3D, M 7101, deriv.
RL: MOA (Modifier or additive use); USES (Uses)

- (calcium salicylate lubricating oil
detergent additive; lubricating oil compn.
contg. phenol-formaldehyde condensate detergents)
- IT 123-56-8D, Succinimide, polyisobutenyl deriv.
RL: MOA (Modifier or additive use); USES (Uses)
(d.p. >12; lubricating oil compn. contg.
phenol-formaldehyde condensate detergents)
- IT 9003-31-0
RL: MOA (Modifier or additive use); USES (Uses)
(isoprene rubber, hydrogenated, hydrogenated polyisoprene;
lubricating oil compn. contg. phenol-formaldehyde
condensate detergents)
- IT 69-72-7D, Salicylic acid, alkyl derivs., neutral and alkali
or alk. earth metal salts 90-01-7D, Saligenin,
aldehyde- and hydrocarbyl derivs., neutral and alkali or alk.
earth metal salts 108-30-5D, Succinic anhydride,
polyisobutenyl (d.p. ~34) derivs., reaction products with
triethylene tetraamine and other polyethylene polyamines
112-24-3D, reaction products with polyisobutenyl succinic anhydride
(d.p. ~25) 688-74-4, Tri-n-butyl borate 6303-21-5D, Phosphinic
acid, mono- and di-hydrocarbyl derivs., metal salts 7664-38-2D,
Phosphoric acid, mono- and di-hydrocarbyl ester derivs., metal salts
9011-13-6, Styrene-maleic anhydride copolymer
10043-35-3D, Boric acid, org. ester derivs. 13460-51-0D, Metaboric
acid, org. ester derivs. 13598-51-1D, Thiophosphoric acid, mono-
and di-hydrocarbyl ester derivs., metal salts 14056-58-7D,
Thiophosphinic acid, mono- and di-hydrocarbyl derivs., metal salts
14056-59-8D, Dithiophosphinic acid, mono- and di-hydrocarbyl
derivs., metal salts 15834-33-0D, Dithiophosphoric acid, mono- and
di-hydrocarbyl ester derivs., metal salts 19210-06-1D,
Phosphorodithioic acid, zinc salt, dialkyl derivs. 22699-89-4D,
Tetrathiophosphoric acid, mono- and di-hydrocarbyl ester derivs.,
metal salts 25758-76-3D, Trithiophosphoric acid, mono- and
di-hydrocarbyl ester derivs., metal salts 27177-41-9 148196-22-9
446879-87-4, LA-2607
RL: MOA (Modifier or additive use); USES (Uses)
(lubricating oil compn. contg. phenol-formaldehyde
condensate detergents)
- IT 69-72-7DP, Salicylic acid, hydrocarbon derivs. of oligomers
with formaldehyde, neutral and alkali or alk. earth
metal salts 90-01-7DP, Saligenin, hydrocarbyl derivs. of
oligomers with formaldehyde, neutral and alkali or alk.
earth metal salts 30525-89-4DP,
Paraformaldehyde, oligomers with metal salts of saligenin derivs.
RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
PREP (Preparation); USES (Uses)
(lubricating oil compn. contg. phenol-formaldehyde
condensate detergents)
- IT 446879-64-7, Lubrizol LZ 7095D 446879-67-0, Lubrizol LZ7075F
RL: MOA (Modifier or additive use); USES (Uses)
(olefin polymer dispersed in oil (89 % diluent oil);
lubricating oil compn. contg. phenol-formaldehyde
condensate detergents)
- IT 152618-44-5, Irganox L135
RL: MOA (Modifier or additive use); USES (Uses)
(substituted ditertiary Bu phenol; lubricating oil

compn. contg. phenol-formaldehyde condensate **detergents**

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L38 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:807322 HCAPLUS

DOCUMENT NUMBER: 137:317868

TITLE: Electric charge-controlling resins and their
manufacture for toners for electrostatographic
development

INVENTOR(S): Suzuki; Noriyuki; Otani, Shinji; Otsuka,
Hideyuki; Anzai, Mitsutoshi

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002308929	A2	20021023	JP 2001-118327	200104 17

PRIORITY APPLN. INFO.: JP 2001-118327

200104
17

AB The resins are manufd. by reacting resins contg. unsatd. dibasic
acid anhydrides (e.g., maleic anhydride) and/or CO₂H-contg. monomers
with salicylic acid derivs. metal compds. (e.g.,
3,5-di-tert-butylsalicylic acid metal compd.), preferably, in wt.
ratio of (reactant resin):(metal compd.) = 100: (0.1-1500). The
toners contain the charge-controlling resins and binder resins in
wt. ratio (0.3-100):(99.7-0) or (0.3-20):(99.7-80). The toners show
low decrease of charge even under high-temp. and high-humidity atm.
and give good image in copying app.

IT 100-42-5D, Styrene, polymers with acrylic compds.

RL: TEM (Technical or engineered material use); USES (Uses)
(binder in toner; elec. charge-controlling resins and their
manuf. for toners for electrostatog. development)

RN 100-42-5 HCAPLUS

CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

H₂C=CH-Ph

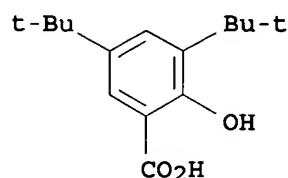
IT 19715-19-6DP, 3,5-Di-tert-butylsalicylic acid, reaction
products with Zr compd. or Ca compd. and maleic
anhydride-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)
 (elec. charge-controlling resins and their manuf. for toners for
 electrostatog. development)

RN 19715-19-6 HCAPLUS

CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-2-hydroxy- (9CI) (CA INDEX
 NAME)



IC ICM C08F008-14

ICS G03G009-08; G03G009-083; G03G009-097

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)

Section cross-reference(s): 37

ST charge controlling resin toner electrostatog development; salicylic
 acid deriv metal compd resin product toner; maleic anhydride polymer
 salicylic compd product toner

IT Electrographic toners

Electrophotographic toners

(elec. charge-controlling resins and their manuf. for toners for
 electrostatog. development)

IT 100-42-5D, Styrene, polymers with acrylic compds.

147414-45-7, CPR 100

RL: TEM (Technical or engineered material use); USES (Uses)

(binder in toner; elec. charge-controlling resins and their
 manuf. for toners for electrostatog. development)

IT 7699-43-6DP, Zirconium oxychloride, reaction products with salicylic
 acid derivs. and maleic anhydride-styrene copolymer 9011-13-6DP,
 Maleic anhydride-styrene copolymer, reaction products with salicylic
 acid derivs. metal compds. 10043-52-4DP, Calcium

chloride, reaction products with salicylic acid derivs. and maleic
 anhydride-styrene copolymer 19715-19-6DP,

3,5-Di-tert-butylsalicylic acid, reaction products with Zr compd. or
 Ca compd. and maleic anhydride-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)

(elec. charge-controlling resins and their manuf. for toners for
 electrostatog. development)

L38 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:649906 HCAPLUS

DOCUMENT NUMBER: 137:186666

TITLE: Fire-resistant polyolefin sheets with good acid
 rain resistance and their manufacture

INVENTOR(S): Kano, Toshiya; Shimakawa, Naoki

PATENT ASSIGNEE(S): Hiraoka and Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002240205	A2	20020828	JP 2001-40578	20010216
JP 3656736	B2	20050608		
JP 2005067209	A2	20050317	JP 2004-308651	20041022
PRIORITY APPLN. INFO.:			JP 2001-40578	A3 20010216

AB The sheets contain base fabrics and ≥ 1 polyolefin cover films contg. (A) 100 parts blends contg. (A1) metallocene-catalyzed LLDPE and (A2) ≥ 1 polymers chosen from EVA and ethylene-(meth)acrylic acid (ester) copolymers; (B) 20-200 parts halogen-free fireproofing agent particles contg. surface covering layers, (C) 0.05-3.0 parts light stabilizers, wherein total amt. of vinyl acetate and (meth)acrylic acid (esters) is 5-30% of A. Thus, a fireproofing agent particle comprised Magseeds N3 [Mg (OH)3] covered with a compn. comprising Polyfix LF 11 (melamine resin), 14.1% SH 6040 (γ -glycidoxypropyltrimethoxysilane), and 1.27% Sunlife LPS 700 (benzotriazole-based UV stabilizer). Then, a film comprising Kernel KF 360 (metallocene-catalyzed LLDPE) 60, Evatate K 2010 (EVA) 40, the particle 100, Viosorb 510 [2-(2'-hydroxy-4'-octoxyphenyl)benzotriazole] 0.5, Tinuvin 765 [bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate] 0.5, and other additives was bonded on both sides of a PET plain woven fabric to give a sheet showing strength retention 94% after soaking in a mixt. of 1 N HNO₃ soln. and 0.1 N H₂SO₄ soln. at 20° for 24 h.

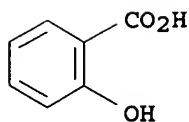
IT 100-42-5D, Styrene, polymers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (backing layers; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

RN 100-42-5 HCAPLUS
 CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

H₂C=CH-Ph

IT 69-72-7D, derivs.
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (light stabilizers; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

RN 69-72-7 HCAPLUS
 CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



- IC ICM B32B027-18
ICS B29B009-06; B32B027-32; C08K003-22; C08K003-32; C08K005-00;
C08K009-04; C08L023-08; C09C001-00; C09C003-10; C09D005-18;
C09D123-04; C09D123-08; C09D131-04; C09D133-06; D06M013-517;
D06M015-333
- CC 38-3 (Plastics Fabrication and Uses)
- ST LLDPE EVA blend film PET fabric laminate; acid rain resistance
polyolefin film fabric laminate; melamine resin covered
magnesium hydroxide fireproofing polyolefin laminate;
hindered amine light stabilizer polyolefin film fabric laminate;
benzotriazole light stabilizer polyolefin film fabric laminate;
metallocene catalyzed LLDPE film fabric laminate; silsesquioxane
covered **magnesium** hydroxide fireproofing polyolefin
laminate
- IT Polymer blends
RL: TEM (Technical or engineered material use); USES (Uses)
(LLDPE-ethylene polymer blends; manuf. of fire-resistant
polyolefin sheets with good acid rain resistance)
- IT Aluminoxanes
RL: CAT (Catalyst use); USES (Uses)
(alkyl, for manuf. of LLDPE; manuf. of fire-resistant polyolefin
sheets with good acid rain resistance)
- IT Polyphosphoric acids
RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)
(ammonium salts, fireproofing agent particles, Exolit AP 422;
manuf. of fire-resistant polyolefin sheets with good acid rain
resistance)
- IT Acrylic polymers, uses
Ionomers
Polyamides, uses
Polyesters, uses
Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(backing layers; manuf. of fire-resistant polyolefin sheets with
good acid rain resistance)
- IT Aminoplasts
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(covers on fireproofing agent particles, Polyfix LF 11; manuf. of
fire-resistant polyolefin sheets with good acid rain resistance)
- IT Aminoplasts
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(covers on fireproofing agent particles, Polyfix LF 20; manuf. of
fire-resistant polyolefin sheets with good acid rain resistance)
- IT Silsesquioxanes
Titanoxanes
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
TEM (Technical or engineered material use); PREP (Preparation); USES

(Uses)
 (covers on fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Epoxy resins, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (covers on fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Polyester fibers, uses
 Polyesters, uses
 Polypropene fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fabrics; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Hydroxides (inorganic)
 Oxides (inorganic), uses
 Phosphates, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Polysiloxanes, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (fluorine-contg., covers on fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Amines, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (hindered, light stabilizers; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Acid-resistant materials
 Fire-resistant materials
 Fireproofing agents
 Laminated plastic films
 Light stabilizers
 (manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Polymerization catalysts
 (metallocene, cyclopentadienyl or indenyl derivs.; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Linear low density polyethylenes
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (metallocene-catalyzed; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Fluoropolymers, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (polysiloxane-, covers on fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

IT Phenolic resins, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (resol, covers on fireproofing agent particles; manuf. of

fire-resistant polyolefin sheets with good acid rain resistance)
 IT Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (unsatd., covers on fireproofing agent particles; manuf. of
 fire-resistant polyolefin sheets with good acid rain resistance)
 IT 21645-51-2, Aluminum hydroxide, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered
 material use); USES (Uses)
 (B 315, fireproofing agent particles; manuf. of fire-resistant
 polyolefin sheets with good acid rain resistance)
 IT 108-05-4D, Vinyl acetate, polymers 131-17-9D, Allyl phthalate,
 polymers 326813-86-9, Sumikaflex S 951
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (backing layers; manuf. of fire-resistant polyolefin sheets with
 good acid rain resistance)
 IT 100-42-5D, Styrene, polymers 557-75-5D, Vinyl alcohol,
 polymers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (backing layers; manuf. of fire-resistant polyolefin sheets with
 good acid rain resistance)
 IT 24937-78-8, Ethylene-vinyl acetate copolymer
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (blends with metallocene-catalyzed LLDPE; manuf. of
 fire-resistant polyolefin sheets with good acid rain resistance)
 IT 9003-08-1, Melamine resin
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (covers on fireproofing agent particles, Polyfix LF 11; manuf. of
 fire-resistant polyolefin sheets with good acid rain resistance)
 IT 9011-05-6, Urea resin
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (covers on fireproofing agent particles, Polyfix LF 20; manuf. of
 fire-resistant polyolefin sheets with good acid rain resistance)
 IT 37317-24-1P, Silicic acid, butyl ester 56325-93-0P, SH 6040
 homopolymer 162477-44-3P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (covers on fireproofing agent particles; manuf. of fire-resistant
 polyolefin sheets with good acid rain resistance)
 IT 9022-96-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (covers on fireproofing agent particles; manuf. of fire-resistant
 polyolefin sheets with good acid rain resistance)
 IT 91-76-9D, Benzoguanamine, polymers 25035-78-3, Daiso Isodap
 25068-38-6, Denacast EM 101 109370-75-4, Polyfix PG 251
 450372-30-2, Tamanol 720
 RL: POF (Polymer in formulation); TEM (Technical or engineered
 material use); USES (Uses)
 (covers on fireproofing agent particles; manuf. of fire-resistant
 polyolefin sheets with good acid rain resistance)
 IT 12654-97-6D, Triazine, polymers

- RL: TEM (Technical or engineered material use); USES (Uses)
(covers on fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 411218-13-8, Aquatex E 1800
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fabric pretreating agents; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 7631-86-9, Silica, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fabric pretreating agents; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 25038-59-9, Poly(ethylene terephthalate), uses 25085-53-4, Isotactic polypropylene
RL: TEM (Technical or engineered material use); USES (Uses)
(fabrics; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 57-13-6D, Urea, derivs. 108-80-5D, Isocyanuric acid, derivs. 113-00-8D, Guanidine, derivs. 1309-42-8, Magseeds N3 7723-14-0, Phosphorus, uses 37640-57-6, MC 610 41203-81-0, Phoscon K 19A
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 291757-33-0, Sunlife LPS 700
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(light stabilizers in covers for fireproofing agent particles; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 69-72-7D, derivs. 95-14-7D, 1H-Benzotriazole, derivs. 119-61-9D, Benzophenone, derivs. 3147-77-1, Viosorb 510 15802-18-3D, derivs. 41556-26-7, Tinuvin 765 63843-89-0, Tinuvin 114
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(light stabilizers; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 25101-13-7, Acryft WH 206
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(manuf. of fire-resistant polyolefin sheets with good acid rain resistance)
- IT 25213-02-9, 1-Hexene, polymer with ethene
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(metallocene-catalyzed LLDPE, blends with EVA; manuf. of fire-resistant polyolefin sheets with good acid rain resistance)

L38 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:615762 HCAPLUS

DOCUMENT NUMBER: 137:172185

TITLE: Lubricating oil formulation containing boron, sulfur, phosphorus, and nitrogen-containing additives

INVENTOR(S): Carrick, Virginia A.; Bardasz, Ewa A.; Abraham,

PATENT ASSIGNEE(S): William D.; Lamb, Gordon D.
 SOURCE: The Lubrizol Corporation, USA
 PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062930	A2	20020815	WO 2002-US3145	20020131
WO 2002062930	A3	20030320		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
CA 2434334	AA	20020815	CA 2002-2434334	20020131
US 2002147116	A1	20021010	US 2002-66531	20020131
US 6605572	B2	20030812		
EP 1360265	A2	20031112	EP 2002-713527	20020131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004521176	T2	20040715	JP 2002-563268	20020131
PRIORITY APPLN. INFO.:				US 2001-266971P P
				20010207
WO 2002-US3145				W
				20020131

OTHER SOURCE(S): MARPAT 137:172185

AB This invention relates claims a **lubricating** oil compn., comprising: (A) a base oil and (B) a boron-contg. compd. (RO)3-B, (RO)2-B-O-B(OR), or a cyclic trimeric structure of the substituted trihydroxyboroxin form, in which each R is independently an org. group and any two adjacent R groups may together form a cyclic group, and other **lubricating** additives contg. sulfur, nitrogen, and optionally phosphorus. The R groups in the boron-contg. compds. are org. and may include aliph., ester, and

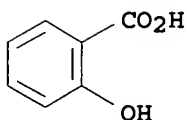
other functionalities. The concn. of sulfur in the lubricating oil compn. is from 0.01% to 0.25% by wt.; the concn. of phosphorus in the lubricating oil compn. is up to 0.08% by wt. In the lubricating oil compn. contg. sulfur, boron and optionally phosphorus the ratio of sulfur: boron: phosphorus is detd. by the following formula: $S + 5B + 3P > 0.35$, where S is the wt. % of sulfur in the compn., B is the wt. % of boron in the compn., and P is the wt. % of phosphorus in the compn. The boron-contg. compds. are antiwear additives and are intended to reduce phosphorus content, thus lengthening lifetime of emission control catalysts in automobiles.

IT 69-72-7D, Salicylic acid, C16-18 alkyl deriv., calcium salt

RL: MOA (Modifier or additive use); USES (Uses)
(lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M139-00

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

ST lubricating oil antiwear additive boron borate boroxin esters dithiophosphate

IT Amides, uses

RL: MOA (Modifier or additive use); USES (Uses)
(C>10 alkyl, ashless dispersant; lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Phenolic resins, uses

RL: MOA (Modifier or additive use); USES (Uses)
(aliph. derivs., alkali and alkali earth metal salts; lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Carboxylic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)
(alk. earth salts; lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Lactones

Phenols, uses

RL: MOA (Modifier or additive use); USES (Uses)
(alkali and alk. earth metal salts; lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Sulfur acids

RL: MOA (Modifier or additive use); USES (Uses)
(alkali earth metal salts, org. esters; lubricating oil formulation contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(alkali metal salts; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Sulfur acids
RL: MOA (Modifier or additive use); USES (Uses)
(alkali salts, org. esters; **lubricating** oil formulation
contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT **Lubricating** oils
(base oils; **lubricating** oil formulation contg. boron,
sulfur, phosphorus, and nitrogen-contg. additives)

IT Sulfonic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(calcium salts, overbased; **lubricating** oil
formulation contg. boron, sulfur, phosphorus, and nitrogen-contg.
additives)

IT Alkaline earth salts
RL: MOA (Modifier or additive use); USES (Uses)
(carboxylates; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Polysiloxanes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(di-Me, antifoam agent; **lubricating** oil formulation
contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Phosphorus acids
RL: MOA (Modifier or additive use); USES (Uses)
(esters, salts; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT **Lubricating** oil additives
(extreme-pressure; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT **Lubricating** oil additives
Lubricating oils
(**lubricating** oil formulation contg. boron, sulfur,
phosphorus, and nitrogen-contg. additives)

IT Borates
RL: MOA (Modifier or additive use); USES (Uses)
(org. triesters; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(phenolic, esters with hydroxyalkyl borates; **lubricating**
oil formulation contg. boron, sulfur, phosphorus, and
nitrogen-contg. additives)

IT Polyamines
RL: MOA (Modifier or additive use); USES (Uses)
(polyethylene-; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT **Lubricating** oil additives
(viscosity improvers; **lubricating** oil formulation
contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT 9016-00-6, Polydimethylsiloxane
RL: MOA (Modifier or additive use); USES (Uses)
(antifoam agent; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

IT 179095-34-2, MCP-1286 446879-87-4, LA 2607

- RL: MOA (Modifier or additive use); USES (Uses)
(antiwear additive; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)
- IT 89347-09-1, 1,3,4-Thiadiazole, 2,5-bis(tert-nonyl dithio)
RL: MOA (Modifier or additive use); USES (Uses)
(copper passivator; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)
- IT 69-72-7D, Salicylic acid, C16-18 alkyl deriv.,
calcium salt 90-01-7D, 2-Hydroxy-benzenemethanol, aliph.
derivs., alkali and alkali **earth metal** salts
108-30-5D, Succinic anhydride, polyisobutenyl derivs., reaction
products with dodecylphenol-formaldehyde polymer, **calcium**
salts, overbased 108-30-5D, Succinic anhydride, polyisobutenyl
derivs., reaction products with polyethylene polyamines 122-39-4D,
Diphenylamine, nonyl and di-nonyl derivs. 621-78-3, Tripentyl
borate 688-74-4, Tributyl borate 2937-59-9D,
1,3-Benzenedimethanol, 2-hydroxy, aliph. derivs., alkali and alkali
earth metal salts 3328-69-6D, 2-Hydroxy
isophthalaldehyde, aliph. derivs., alkali and alkali **earth**
metal salts 6543-19-7, 1,3,2-Dioxaborinane, 2,2'-oxybis-
6543-19-7D, 1,3,2-Dioxaborinane, 2,2'-oxybis-, aliph. derivs.
10043-35-3D, Boric acid, org. esters 13460-51-0D,
TrihydroxyBoroxin, org. esters 14697-50-8, 1,3,2-Dioxaborinane,
2,2'-oxybis-(4,4,6-trimethyl)- 15834-33-0D; Dithiophosphoric acid,
dialkyl derivs., zinc salt 26851-55-8D, Boric acid (H4B2O5), org.
esters 39318-99-5D, Dodecylphenol-formaldehyde polymer,
magnesium salt
RL: MOA (Modifier or additive use); USES (Uses)
(**lubricating** oil formulation contg. boron, sulfur,
phosphorus, and nitrogen-contg. additives)
- IT 1309-48-4, **Magnesium** oxide (MgO), reactions 39318-99-5D,
Dodecylphenol-formaldehyde polymer, **calcium** salt, reaction
products with polyisobutenyl succinic anhydride, overbased
RL: RCT (Reactant); RACT (Reactant or reagent)
(**lubricating** oil formulation contg. boron, sulfur,
phosphorus, and nitrogen-contg. additives)
- IT 1305-62-0, **Calcium** hydroxide (Ca(OH)2), uses
RL: NUU (Other use, unclassified); USES (Uses)
(overbased succinic anhydride deriv. modifier;
lubricating oil formulation contg. boron, sulfur,
phosphorus, and nitrogen-contg. additives)
- IT 9011-13-6, Maleic anhydride, polymer with **styrene**
RL: MOA (Modifier or additive use); USES (Uses)
(pour point depressant; **lubricating** oil formulation
contg. boron, sulfur, phosphorus, and nitrogen-contg. additives)
- IT 446879-64-7, Lubrizol LZ 7095D 446879-67-0, Lubrizol LZ 7075F
RL: MOA (Modifier or additive use); USES (Uses)
(viscosity modifier; **lubricating** oil formulation contg.
boron, sulfur, phosphorus, and nitrogen-contg. additives)

L38 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:449808 HCAPLUS

DOCUMENT NUMBER: 137:35398

TITLE: **Lubricating** film composition for screw
joint and the joint

INVENTOR(S): Goto, Kunio; Nagasaku, Shigeo; Yamamoto, Hideo

PATENT ASSIGNEE(S): Sumitomo Metal Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 39 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046338	A1	20020613	WO 2001-JP10573	20011204
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2002173692	A2	20020621	JP 2000-368895	20001204
EG 23042	A	20040131	EG 2001-1288	20011202
CA 2430533	AA	20020613	CA 2001-2430533	20011204
AU 2002022575	A5	20020618	AU 2002-22575	20011204
EP 1350834	A1	20031008	EP 2001-999621	20011204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001015926	A	20031223	BR 2001-15926	20011204
CN 1526006	A	20040901	CN 2001-820039	20011204
RU 2246532	C1	20050220	RU 2003-119974	20011204
PRIORITY APPLN. INFO.:			JP 2000-368895	A
			WO 2001-JP10573	W

200112

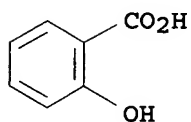
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AB The compn. has ≥ 1 basic oil, selected from basic sulfonate, basic salicylate, and basic phenolate, at least partially sol. in a base oil. The film compn. may contain other additives. The joint has a pin-box structure, contg. screwed and unscrewed metal contacting areas, with the **lubricating** film applied on the screwed and/or unscrewed area of the pin and/or the box.

IT 69-72-7D, Salicylic acid, alkyl deriv. **magnesium** salt, basic
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lubricating film compns. contg. basic oils dissolved in base oils for screw joints)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M159-20
 ICS F16L015-04; C10N040-00; C10N050-02

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
 Section cross-reference(s): 55

ST screw joint **lubricating** film compn; basic sulfonate oil
 screw joint **lubricating** film compn; basic salicylate oil
 screw joint **lubricating** film compn; basic phenate oil
 screw joint **lubricating** film compn

IT **Lubricants**
 (additives in **lubricating** film compns. contg. basic oils dissolved in base oils for screw joints)

IT Acrylic polymers, uses
 Hydrocarbon oils
 Lanolin
 RL: MOA (Modifier or additive use); USES (Uses)
 (additives in **lubricating** film compns. contg. basic oils dissolved in base oils for screw joints)

IT Sulfonic acids, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (arenesulfonic, barium and **calcium** salts, basic; **lubricating** film compns. contg. basic oils dissolved in base oils for screw joints)

IT Screws
 (**lubricating** film compns. contg. basic oils dissolved in base oils for screw joints)

IT Petroleum spirits
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**lubricating** film compns. contg. basic oils dissolved in base oils for screw joints)

IT Lard
 RL: MOA (Modifier or additive use); USES (Uses)

(sulfurized; additives in **lubricating** film compns.
contg. basic oils dissolved in base oils for screw joints)

- IT Fatty acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(tallow, **calcium** salts; additives in
lubricating film compns. contg. basic oils dissolved in
base oils for screw joints)
- IT 7057-92-3, Dilauryl hydrogen phosphate 9002-88-4, Polyethylene
15834-33-0D, Dithiophosphoric acid, dialkyl esters, zinc salt
57675-44-2, Trimethylolpropane trioleate
RL: MOA (Modifier or additive use); USES (Uses)
(additives in **lubricating** film compns. contg. basic
oils dissolved in base oils for screw joints)
- IT 108-95-2D, Phenol, alkyl derivs., **calcium** salt
RL: TEM (Technical or engineered material use); USES (Uses)
(basic; **lubricating** film compns. contg. basic oils
dissolved in base oils for screw joints)
- IT 69-72-7D, Salicylic acid, alkyl deriv. **magnesium**
salt, basic 111-76-2, Butyl cellosolve 1330-20-7, Xylene, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**lubricating** film compns. contg. basic oils dissolved
in base oils for screw joints)
- IT 100-42-5, **Styrene**, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polymers; additives in **lubricating** film compns. contg.
basic oils dissolved in base oils for screw joints)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L38 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:78025 HCAPLUS
DOCUMENT NUMBER: 134:131960
TITLE: Polyvalent metal salts of salicyclic acid resin
and their preparation as color developers
INVENTOR(S): Lee, Sung Woo
PATENT ASSIGNEE(S): Daedong Co., Ltd., S. Korea
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1072623	A2	20010131	EP 2000-105409	200003 14
EP 1072623	A3	20030102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
KR 2000024154	A	20000506	KR 2000-3589	200001 26

CA 2300773

AA

20010121

CA 2000-2300773

200003
17

PRIORITY APPLN. INFO.:

KR 1999-29619

A

199907
21

KR 2000-3589

A

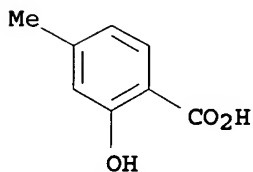
200001
26

AB Polyvalent metal salts of salicylic acid resin, made by reacting salicylic acid or its deriv. and styrene or its deriv. in the presence of Zn salt of org. carboxylic acid and/or polyvalent metal compd. at 50-200°, and reacting the reaction product with polyvalent metal compd., are dispersed in H₂O.

IT 50-85-1DP, 4-Methylsalicylic acid, reaction products with styrene, polymers, zinc salts 69-72-7DP, Salicylic acid, reaction products with styrene, polymers, zinc salts 100-42-5DP, Styrene, reaction products with salicylic acid, polymers, zinc salts
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (salicylic acid resin zinc salt dispersion for color developer sheet)

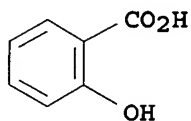
RN 50-85-1 HCAPLUS

CN Benzoic acid, 2-hydroxy-4-methyl- (9CI) (CA INDEX NAME)



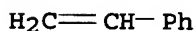
RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 100-42-5 HCAPLUS

CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



IC C08G061-02; B41M005-155

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

ST color developer resin sheet; pressure sensitive copy paper
IT Color developers
(salicylic acid resin zinc salt dispersion for color developer sheet)
IT 2180-18-9, Manganese acetate 7446-70-0, Aluminum chloride, reactions 7487-88-9, Magnesium sulfate, reactions 7646-79-9, Cobalt chloride, reactions 7646-85-7, Zinc chloride, reactions 7718-54-9, Nickel chloride, reactions 7778-18-9, Calcium sulfate 7779-88-6, Zinc nitrate 7786-30-3, Magnesium chloride, reactions 10043-01-3, Aluminum sulfate 10043-52-4, Calcium chloride, reactions 10361-37-2, Barium chloride, reactions 20427-58-1, Zinc hydroxide
RL: RCT (Reactant); RACT (Reactant or reagent)
(salicylic acid resin salt dispersion for color developer sheet)
IT 553-72-0, Zinc benzoate 557-05-1, Zinc stearate 557-09-5, Zinc caprylate 557-34-6, Zinc acetate 1314-13-2, Zinc oxide, uses
RL: CAT (Catalyst use); USES (Uses)
(salicylic acid resin zinc salt dispersion for color developer sheet)
IT 50-85-1DP, 4-Methylsalicylic acid, reaction products with styrene, polymers, zinc salts 69-72-7DP, Salicylic acid, reaction products with styrene, polymers, zinc salts 100-42-5DP, Styrene, reaction products with salicylic acid, polymers, zinc salts 622-97-9DP, 4-Methylstyrene, reaction products with salicylic acid, polymers, zinc salts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(salicylic acid resin zinc salt dispersion for color developer sheet)
IT 7733-02-0, Zinc sulfate
RL: RCT (Reactant); RACT (Reactant or reagent)
(salicylic acid resin zinc salt dispersion for color developer sheet)

L38 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:227440 HCAPLUS
DOCUMENT NUMBER: 132:261672
TITLE: Weed growth-inhibiting formulations containing nonselective organophosphorus herbicides
INVENTOR(S): Horibe, Yoshimichi; Amagasa, Tadashi; Sato, Kazuo; Aoki, Atsushi
PATENT ASSIGNEE(S): Sankyo Company, Ltd., Japan
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000018236	A1	20000406	WO 1999-JP5174	19990922

W: AU, BR, CA, CN, KR, RU, UA, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE

AU 9957577	A1	20000417	AU 1999-57577	199909 22
JP 2000159615	A2	20000613	JP 1999-267910	199909 22
PRIORITY APPLN. INFO.:			JP 1998-271696	A 199809 25
			WO 1999-JP5174	W 199909 22

OTHER SOURCE(S): MARPAT 132:261672

AB: Agrochem. compns. that can be utilized to control the growth of weeds without killing the plants (e.g. on slopes or ridges) contain a first ingredient selected from the group consisting of glyphosate, etc.; a second ingredient selected from the group consisting of phosphorous acid derivs., etc.; and a third ingredient selected from the group consisting of antioxidants, etc. Thus, glyphosate isopropylamine salt 1000 + calcium propionate 500 + Pr gallate 1000 ppm controlled the height of gramineous weeds such as *Setaria viridis* and broadleaf weeds (e.g. *Ipomoea purpurea*).

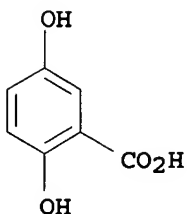
IT 490-79-9D, Gentisic acid, salts, mixts. with organophosphorus herbicides 824-35-1D, Calcium salicylate, mixts. with organophosphorus herbicides, mixts. 7439-95-4D, Magnesium, salts, mixts. with organophosphorus herbicides, biological studies 7440-70-2D, Calcium, salts, mixts. with organophosphorus herbicides, biological studies

RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)

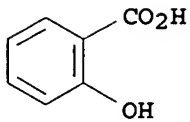
RN 490-79-9 HCAPLUS

CN Benzoic acid, 2,5-dihydroxy- (9CI) (CA INDEX NAME)



RN 824-35-1 HCAPLUS

CN Benzoic acid, 2-hydroxy-, calcium salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Ca

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

IT 100-42-5D, Styrene, sulfonated, sodium salts
RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA
(Modifier or additive use); BIOL (Biological study); USES (Uses)
(weed growth-inhibiting formulations contg. nonselective
organophosphorus herbicides)
RN 100-42-5 HCAPLUS
CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

H₂C=CH-Ph

IC ICM A01N057-20
ICS A01N057-12; A01N063-02; A01N059-06; A01N025-00
CC 5-3 (Agrochemical Bioregulators)
ST weed growth inhibitor organophosphorus herbicide formulation
IT Surfactants
(anionic; weed growth-inhibiting formulations contg. nonselective
organophosphorus herbicides)
IT Tannins
RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA
(Modifier or additive use); BIOL (Biological study); USES (Uses)
(antioxidant; weed growth-inhibiting formulations contg.
nonselective organophosphorus herbicides)
IT Weed control
(formulations contg. nonselective organophosphorus herbicides for
controlling weed growth)
IT Hormones, plant
RL: AGR (Agricultural use); BAC (Biological activity or effector,
except adverse); BSU (Biological study, unclassified); BUU
(Biological use, unclassified); BIOL (Biological study); USES (Uses)

- (growth inhibitors; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Amines, biological studies
RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(hindered, photostabilizers; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Alums
Borates
Carbonates, biological studies
Chlorates
Cyanates
Hydrogen halides
Nitrates, biological studies
Nitrites
Peroxysulfates
Phosphates, biological studies
Salts, biological studies
Sulfates, biological studies
Sulfites
Thiosulfates
RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(mixts.; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Herbicides
(organophosphorus; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Antioxidants
(phenolic; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Amino acids, biological studies
Carboxylic acids, biological studies
RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(salts, mixts. with organophosphorus herbicides; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT Agrochemical formulations
Antioxidants
Light stabilizers
Surfactants
(weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT 121-79-9, Propyl gallate
RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(antioxidant; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate
RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(photostabilizer; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)
- IT 9069-80-1, Formaldehyde-naphthalenesulfonic acid polymer ammonium salt 9084-06-4, Naphthalenesulfonic acid-formaldehyde polymer

sodium salt

RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (surfactant; weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)

IT 207670-92-6

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (weed growth-inhibiting formulations contg. nonselective organophosphorus herbicides)

IT 50-00-0D, Formaldehyde, salts, mixts., biological studies
 50-21-5D, Lactic acid, salts, mixts. with organophosphorus herbicides 50-81-7D, L-Ascorbic acid, salts, mixts. with organophosphorus herbicides, biological studies 52-90-4D, Cysteine, salts, mixts. with organophosphorus herbicides 56-12-2D, GABA, salts, mixts. with organophosphorus herbicides 56-40-6D, Glycine, salts, mixts. with organophosphorus herbicides, biological studies 56-41-7D, Alanine, salts, mixts. with organophosphorus herbicides 56-45-1D, Serine, salts, mixts. with organophosphorus herbicides 56-84-8D, Aspartic acid, salts, mixts. with organophosphorus herbicides 56-85-9D, Glutamine, salts, mixts. with organophosphorus herbicides 56-86-0D, Glutamic acid, salts, mixts. with organophosphorus herbicides 56-87-1D, Lysine, salts, mixts. with organophosphorus herbicides 56-89-3D, Cystine, salts, mixts. with organophosphorus herbicides 60-18-4D, Tyrosine, salts, mixts. with organophosphorus herbicides 61-90-5D, Leucine, salts, mixts. with organophosphorus herbicides 63-68-3D, Methionine, salts, mixts. with organophosphorus herbicides 63-91-2D, Phenylalanine, salts, mixts. with organophosphorus herbicides 64-18-6D, Formic acid, salts, mixts. with organophosphorus herbicides, biological studies 64-19-7D, Acetic acid, salts, mixts. with organophosphorus herbicides, biological studies 70-26-8D, Ornithine, salts, mixts. with organophosphorus herbicides 70-47-3D, Asparagine, salts, mixts. with organophosphorus herbicides 71-00-1D, Histidine, salts, mixts. with organophosphorus herbicides 72-18-4D, Valine, salts, mixts. with organophosphorus herbicides 72-19-5D, Threonine, salts, mixts. with organophosphorus herbicides 73-22-3D, Tryptophan, salts, mixts. with organophosphorus herbicides 73-32-5D, Isoleucine, salts, mixts. with organophosphorus herbicides 74-79-3D, Arginine, salts, mixts. with organophosphorus herbicides 79-09-4D, Propionic acid, salts, mixts. with organophosphorus herbicides 87-69-4D, Tartaric acid, salts, mixts. with organophosphorus herbicides, biological studies 89-00-9D, Quinolinic acid, salts, mixts. 97-65-4D, Itaconic acid, salts, mixts. with organophosphorus herbicides 98-98-6D, Picolinic acid, salts, mixts. 99-50-3D, Protocatechuic acid, salts, mixts. with organophosphorus herbicides 99-96-7D, 4-Hydroxybenzoic acid, salts, mixts. with organophosphorus herbicides 103-82-2D, Phenylacetic acid, salts, mixts. with organophosphorus herbicides 107-95-9D, β -Alanine, salts, mixts. with organophosphorus herbicides 109-52-4D, Valeric acid, salts, mixts. with organophosphorus herbicides 110-15-6D, Succinic acid, salts, mixts. with organophosphorus herbicides 110-17-8D, Fumaric acid, salts, mixts. with organophosphorus herbicides 118-92-3D, Anthranilic acid, salts, mixts. with organophosphorus herbicides

123-76-2D, Levulinic acid, salts, mixts. with organophosphorus herbicides 127-17-3D, Pyruvic acid, salts, mixts. with organophosphorus herbicides 138-59-0D, Shikimic acid, salts, mixts. with organophosphorus herbicides 139-12-8D, Aluminum acetate, mixts. 141-82-2D, Malonic acid, salts, mixts. with organophosphorus herbicides 143-07-7D, Lauric acid, salts, mixts. with organophosphorus herbicides 144-62-7D, Oxalic acid, salts, mixts. with organophosphorus herbicides 147-85-3D, Proline, salts, mixts. with organophosphorus herbicides 156-06-9D, Phenylpyruvic acid, salts, mixts. with organophosphorus herbicides 156-38-7D, p-Hydroxyphenylacetic acid, salts, mixts. with organophosphorus herbicides 298-12-4D, . α -Ketoacetic acid, salts, mixts. with organophosphorus herbicides 299-28-5D, **Calcium** gluconate, mixts. 328-50-7D, 2-Oxoglutaric acid, salts, mixts. with organophosphorus herbicides 372-75-8D, Citrulline, salts, mixts. with organophosphorus herbicides 451-13-8D, Homogentisic acid, salts, mixts. with organophosphorus herbicides 471-34-1D, **Calcium** carbonate, mixts. 473-81-4D, Glyceric acid, salts, mixts. with organophosphorus herbicides 490-79-9D, Gentisic acid, salts, mixts. with organophosphorus herbicides 501-52-0D, Benzenepropanoic acid, salts, mixts. with organophosphorus herbicides 506-85-4D, Fulminic acid, salts, mixts. 512-25-4D, Barium citrate, mixts. with organophosphorus herbicides 526-95-4D, Gluconic acid, salts, mixts. with organophosphorus herbicides 535-75-1D, Pipelicolic acid, salts, mixts. 541-50-4D, Acetoacetic acid, salts, mixts. with organophosphorus herbicides 542-32-5D, . α -Aminoadipic acid, salts, mixts. with organophosphorus herbicides 542-78-9D, Malonaldehyde, salts, mixts. with organophosphorus herbicides 546-93-0D, **Magnesium** carbonate, mixts. 552-63-6D, Tropic acid, salts, mixts. with organophosphorus herbicides 567-36-2D, 3-Hydroxyproline, salts, mixts. with organophosphorus herbicides 591-64-0D, **Calcium** levulinate, mixts. 672-15-1D, Homoserine, salts, mixts. with organophosphorus herbicides 759-05-7D, 2-Oxoisovaleric acid, salts, mixts. with organophosphorus herbicides 814-80-2D, **Calcium** lactate, mixts. 816-66-0D, 2-Oxoisocaproic acid, salts, mixts. with organophosphorus herbicides 824-35-1D, **Calcium** salicylate, mixts. with organophosphorus herbicides, mixts. 1071-83-6D, Glyphosate, mixts. contg. herbicide and its salts 1113-60-6D, Hydroxypyruvic acid, salts, mixts. with organophosphorus herbicides 1305-62-0D, **Calcium** hydroxide, mixts. with organophosphorus herbicides 1309-42-8D, **Magnesium** hydroxide, mixts. with organophosphorus herbicides 1460-34-0D, 2-Oxo-3-methylvaleric acid, salts, mixts. with organophosphorus herbicides 2090-05-3D, **Calcium** benzoate, mixts. 2414-98-4D, **Magnesium** ethoxide, mixts. with organophosphorus herbicides 2439-99-8D, Glyphosine, mixts. contg. herbicide and its salts 2466-09-3D, Diphosphoric acid, salts, mixts. 3164-34-9D, **Calcium** tartrate, mixts., biological studies 3184-35-8D, α -Keto adipic acid, salts, mixts. with organophosphorus herbicides 3486-35-9D, Zinc carbonate, mixts. 3909-12-4D, Threonic acid, salts, mixts. with organophosphorus herbicides 4075-81-4D, **Calcium** propionate, mixts. 6303-21-5D, Phosphinic acid, salts, mixts. 6556-12-3D, Glucuronic acid, salts, mixts. with organophosphorus herbicides 6667-60-3D,

β -Methylaspartic acid, salts, mixts. with organophosphorus herbicides 6915-15-7D, Malic acid, salts, mixts. with organophosphorus herbicides 7230-93-5D, Aluminum laurate, mixts. 7429-90-5D, Aluminum, salts, mixts. with organophosphorus herbicides, biological studies 7439-89-6D, Iron, salts, mixts. with organophosphorus herbicides, biological studies 7439-95-4D, **Magnesium**, salts, mixts. with organophosphorus herbicides, biological studies 7440-39-3D, Barium, salts, mixts. with organophosphorus herbicides, biological studies 7440-66-6D, Zinc, salts, mixts. with organophosphorus herbicides, biological studies 7440-70-2D, **Calcium**, salts, mixts. with organophosphorus herbicides, biological studies 7446-70-0D, Aluminum chloride, mixts. 7487-88-9D, **Magnesium** sulfate, mixts. 7646-85-7D, Zinc chloride, mixts. 7693-13-2D, **Calcium** citrate, mixts. with organophosphorus herbicides 7705-08-0D, Iron(III) chloride, mixts. 7720-78-7D, Ferrous sulfate, mixts. 7733-02-0D, Zinc sulfate, mixts. 7757-93-9D, **Calcium** hydrogen phosphate, mixts. 7758-94-3D, Iron(II) chloride, mixts. 7778-18-9D, **Calcium** sulfate, mixts. 7779-25-1D, **Magnesium** citrate, mixts. with organophosphorus herbicides 7779-88-6D, Zinc nitrate, mixts. 7779-90-0D, Zinc phosphate, mixts. 7784-25-0D, Ammonium aluminum sulfate, mixts. with organophosphorus herbicides 7786-30-3D, **Magnesium** chloride, mixts. 7789-79-9D, Phosphinic acid, **calcium** salt, mixts. 9005-32-7D, Alginic acid, salts, mixts. with organophosphorus herbicides 9012-76-4D, Chitosan, mixts. with organophosphorus herbicides 10028-22-5D, Ferric sulfate, mixts. 10043-01-3D, Aluminum sulfate, mixts. 10043-01-3D, Alum, mixts. with organophosphorus herbicides 10043-52-4D, **Calcium** chloride, mixts. 10124-37-5D, **Calcium** nitrate, mixts. 10257-55-3D, **Calcium** sulfite, mixts. 10377-60-3D, **Magnesium** nitrate, mixts. 10402-24-1D, Iron phosphate, mixts. 11113-66-9D, Iron hydroxide, mixts. with organophosphorus herbicides 13473-90-0D, Aluminum nitrate, mixts. 13598-36-2D, Phosphonic acid, esters, salts, mixts. with organophosphorus herbicides 14104-77-9D, Iron nitrate, mixts. 14455-29-9D, Aluminum carbonate, mixts. 14866-19-4D, **Calcium** dihydrogen pyrophosphate, mixts. 15007-61-1D, Potassium aluminum sulfate, mixts. with organophosphorus herbicides 15099-32-8D, Phosphonic acid, aluminum salt, mixts. 15479-57-9D, Aluminum salicylate, mixts. with organophosphorus herbicides 17194-00-2D, Barium hydroxide, mixts. with organophosphorus herbicides 18917-91-4D, Aluminum lactate, mixts. 18917-93-6D, **Magnesium** lactate, mixts. 19022-77-6D, Aluminum acetoacetate, mixts. with organophosphorus herbicides 20196-46-7D, Sulfoxylic acid, salts, mixts. 20246-53-1D, Gulonic acid, salts, mixts. with organophosphorus herbicides 20427-58-1D, Zinc hydroxide, mixts. with organophosphorus herbicides 21645-51-2D, Aluminum hydroxide, mixts. with organophosphorus herbicides 25493-06-5D, Phosphonic acid, **calcium** salt, mixts. 30581-89-6D, Imidazoleacetic acid, salts, mixts. with organophosphorus herbicides 31142-56-0D, Aluminum citrate, mixts. with organophosphorus herbicides 32378-14-6D, mixts. 33239-40-6D, α -Ketosuccinamic acid, salts, mixts. with organophosphorus herbicides 34296-08-7D, Barium isopropyl phosphate, mixts. with organophosphorus herbicides 35597-43-4D,

Bialaphos, mixts. contg. herbicide and its salts 36413-60-2D,
 Quinic acid, mixts. with organophosphorus herbicides 39148-24-8D,
 Fosetyl Al, mixts. 51276-47-2D, Glufosinate, mixts. contg.
 herbicide and its salts 53500-11-1D, mixts. with organophosphorus
 herbicides 61114-26-9D, mixts. with organophosphorus herbicides
 65644-56-6D, Calcium glycerate, mixts. 106145-21-5D,
 mixts. 130752-20-4D, mixts. 207671-14-5D, mixts. with
 organophosphorus herbicides 207671-76-9D, mixts. with
 organophosphorus herbicides 207671-77-0D, mixts. with
 organophosphorus herbicides

RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL
 (Biological study); USES (Uses)

(weed growth-inhibiting formulations contg. nonselective
 organophosphorus herbicides)

IT 100-42-5D, Styrene, sulfonated, sodium salts 8061-51-6,
 Sodium ligninsulfonate 9038-56-6, Styrene-sodium maleate copolymer
 37307-94-1, Formaldehyde-phenolsulfonic acid polymer, sodium salt

RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA
 (Modifier or additive use); BIOL (Biological study); USES (Uses)

(weed growth-inhibiting formulations contg. nonselective
 organophosphorus herbicides)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L38 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:435892 HCAPLUS

DOCUMENT NUMBER: 127:53334

TITLE: Preservation lubricant

INVENTOR(S): Evseev, Vladimir S.; Shubina, Nila S.;
 Gavrilova, Tatyana I.; Ivanov, Ivan N.; Lazarev,
 Aleksandr V.; Bulgakov, Sergej V.

PATENT ASSIGNEE(S): Aktsionernoe Obshchestvo Otkrytogo Tipa
 "vserossijskij Nauchno-Issledovatel'skij I
 Konstruktorsko-Tekhnologicheskij Institut
 Oborudovaniya Neftepererab, Russia; Aoot
 "vnikhteftekhimoborudovanie"

SOURCE: Russ. From: Izobreteniya 1996, (32), 170.

CODEN: RUXXE7

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2069228	C1	19961120	RU 1993-56110	199312 20
PRIORITY APPLN. INFO.:				RU 1993-56110
				199312 20

AB Title only translated.

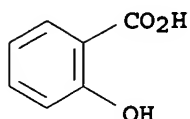
IT 69-72-7D, Salicylic acid, alkyl derivs., calcium

salts

RL: NUU (Other use, unclassified); USES (Uses)
(in preservation lubricant)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M163-00

ICI C10M163-00, C10M129-54, C10M159-06, C10M159-10; C10N030-12

CC 51-8 (Fossil Fuels, Derivatives, and Related
Products)

ST preservation lubricant

IT Lubricants
(for preservation)

IT Ceresin

Hydrocarbon oils

RL: NUU (Other use, unclassified); USES (Uses)
(in preservation lubricant)

IT Natural rubber, uses

Styrene-butadiene rubber, uses

RL: NUU (Other use, unclassified); USES (Uses)
(latex, manufg. waste; in preservation lubricant)

IT Isoprene rubber, uses

RL: NUU (Other use, unclassified); USES (Uses)
(manufg. waste; in preservation lubricant)IT 69-72-7D, Salicylic acid, alkyl derivs., calcium
saltsRL: NUU (Other use, unclassified); USES (Uses)
(in preservation lubricant)

IT 9003-31-0

RL: NUU (Other use, unclassified); USES (Uses)
(isoprene rubber, manufg. waste; in preservation
lubricant)

IT 9003-55-8

RL: NUU (Other use, unclassified); USES (Uses)
(styrene-butadiene rubber, latex, manufg. waste; in
preservation lubricant)

L38 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:404703 HCAPLUS

DOCUMENT NUMBER: 125:62893

TITLE: Method of obtaining polytetrafluoroethylene
suspensions used as additives to
lubricants and hydraulic oilsINVENTOR(S): Gutkowski, Jacek; Feist-Kusmierrek, Zofia M.;
Wachal, Andrzej L.; Gorski, KrzysztofPATENT ASSIGNEE(S): Przedsiębiorstwo Produkcyjno-Handlowe "Ekkoglob"
Sp Z Oo, Pol.

SOURCE: Pol., 5 pp.

CODEN: POXXA7

DOCUMENT TYPE: Patent
 LANGUAGE: Polish
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

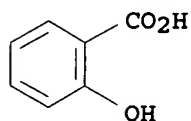
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 168489	B1	19960229	PL 1992-295402	19920724
PRIORITY APPLN. INFO.:			PL 1992-295402	19920724

AB PTFE suspensions for **lubricating** oils and hydraulic fluids is prepd. by adding 16 wt.% of aq. PTFE suspension (contg. PTFE 60, ammonium perfluorocaprylate 0.02, nonionic surfactant 0.02, and alc. substance 0-1000%) to base **lubricating** oil under heavy mixing, sepn. of the aq. mixt. from the oil mixt. contg. PTFE by decanting, heating the oil mixt. until complete evapn. of the alc., and addn. of 0.2-4 wt.% dispersant, 0.3-4 wt.% **detergent**, and 20 wt.% thickener to the oil mixt.

IT 69-72-7D, esters, **calcium** salts
 RL: MOA (Modifier or additive use); USES (Uses)
 (method for obtaining polytetrafluoroethylene suspensions used as additives to **lubricants** and hydraulic oils)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M147-02

CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)

ST polytetrafluoroethylene suspension additive **lubricating** oil; hydraulic oil polytetrafluoroethylene suspension additive

IT Hydraulic fluids
Lubricating oil additives
 (method for obtaining polytetrafluoroethylene suspensions used as additives to **lubricants** and hydraulic oils)

IT Sulfonic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**calcium** salts, **detergent**; method for obtaining polytetrafluoroethylene suspensions used as additives to **lubricants** and hydraulic oils)

IT Phenols, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**magnesium** salts, sulfurized; method for obtaining polytetrafluoroethylene suspensions used as additives to **lubricants** and hydraulic oils)

IT 69-72-7D, esters, calcium salts 123-56-8,
Succinimide 9002-84-0, Ptfе
RL: MOA (Modifier or additive use); USES (Uses)
(method for obtaining polytetrafluoroethylene suspensions used as
additives to lubricants and hydraulic oils)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses
RL: NUU (Other use, unclassified); USES (Uses)
(method for obtaining polytetrafluoroethylene suspensions used as
additives to lubricants and hydraulic oils)

IT 9003-55-8, Butadiene-styrene copolymer 9010-79-1,
Ethylene-propylene copolymer 9011-14-7, Poly(methyl methacrylate)
RL: MOA (Modifier or additive use); USES (Uses)
(thickener; method for obtaining polytetrafluoroethylene
suspensions used as additives to lubricants and
hydraulic oils)

L38 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:599701 HCAPLUS
DOCUMENT NUMBER: 123:204119
TITLE: Pour point depressants for high monounsaturated
vegetable oils and for high monounsaturated
vegetable oils/biodegradable base and fluid
mixtures
INVENTOR(S): Lal, Kasturi; Dishong, Dennis M.; Dietz, Jeffry
G.
PATENT ASSIGNEE(S): Lubrizol Corp., USA
SOURCE: U.S., 44 pp. Cont.-in-part of U.S. Ser. No.
993,178, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 5413725	A	19950509	US 1993-165777	199312 10
IN 187941	A	20020727	IN 1993-DE1093	199309 30
ZA 9309326	A	19940825	ZA 1993-9326	199312 13
JP 06220482	A2	19940809	JP 1993-313718	199312 14
AU 9352462	A1	19940630	AU 1993-52462	199312 16
AU 672249 CA 2111777	B2 AA	19960926 19940619	CA 1993-2111777	199312 17

CA 2111777 C 20031209 US 1992-993178 B2
PRIORITY APPLN. INFO.: 199212
18

OTHER SOURCE(S): MARPAT 123:204119

AB An industrial **lubricant** compn. is described that comprises
(A) ≥ 1 vegetable or synthetic triglyceride oil of the formula
 $R1COOCH2CH(OCOR2)CH2OCOR3$ wherein R1, R2 and R3 are aliph.
hydrocarbyl groups having at least 60 percent monounsatd. character
and contg. from 6-24 carbon atoms further wherein an oleic acid
moiety:linoleic acid moiety is from about 2-90 and (B) at least one
pour point depressant. Optionally, the compn. may also contain (C)
a performance additive and (D) an oil.

IT 69-72-7DP, Salicylic acid, alkylated, **magnesium**
salts

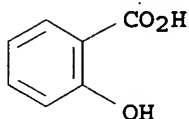
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(performance additives; for high monounsatd. vegetable oils and
for high monounsatd. vegetable oils/biodegradable base and fluid
mixts.)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M141-00

INCL 252018000

CC 51-8 (**Fossil Fuels**, Derivatives, and Related
Products)

ST pour depressant high monounsatd vegetable oil; biodegradable base
fluid industrial **lubricant**

IT Glycerides, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)

(meadow foam-oil, oleic acid-high; pour point depressants for
high monounsatd. vegetable oils and for high monounsatd.
vegetable oils/biodegradable base and fluid mixts.)

IT Hydraulic fluids

(pour point depressants for high monounsatd. vegetable oils and
for high monounsatd. vegetable oils/biodegradable base and fluid
mixts.)

IT Sulfonic acids, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)

(**calcium** salts, overbased, performance additives; for
high monounsatd. vegetable oils and for high monounsatd.
vegetable oils/biodegradable base and fluid mixts.)

IT Glycerides, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered
material use); USES (Uses)

- (corn-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(cottonseed-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Lubricating oils
(crankcase, pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Fats and Glyceridic oils
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(lesquerella, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(palm-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Polyamines
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(polyethylene-, reaction products, with polyisobutenylsuccinic anhydride, performance additives; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Lubricating oil additives
(pour-point depressants, for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(rape-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(safflower-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(soya, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixtures.)
- IT Glycerides, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered

- material use); USES (Uses)
(sunflower-oil, oleic acid-high; pour point depressants for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)
- IT 91-20-3DP, Naphthalene, methylene-linked derivs. 123-00-2DP, 4-Morpholinepropanamine, reaction products with esterified maleic anhydride-**styrene** copolymer 9011-13-6DP, Maleic anhydride-**styrene** copolymer, esters, reaction products with aminopropyl morpholine 26809-51-8DP, esters, reaction products with aminopropyl morpholine 158591-89-0P 158591-90-3P 158591-91-4P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(Pour point depressant; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)
- IT 111-40-0DP, Diethylenetriamine, reaction products with polyisobutenylsuccinic anhydride
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(dispersants; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)
- IT 50-00-0DP, Formaldehyde, reaction products with O,O-dialkyl phosphorodithioates and acrylamide or methylenebisacrylamide 79-06-1DP, Acrylamide, reaction products with O,O-dialkyl phosphorodithioates and paraformaldehyde 96-33-3DP, Methyl acrylate, reaction products with O,O-dialkyl phosphorodithioates 110-26-9DP, Methylenebisacrylamide, reaction products with O,O-dialkyl phosphorodithioates and paraformaldehyde 6028-47-3DP, reaction products with acrylamide 15834-33-0DP, Phosphorodithioic acid, O,O-dialkyl esters, reaction products with acrylamide and paraformaldehyde 22135-55-3DP, reaction products with acrylamide and paraformaldehyde 26999-29-1DP, reaction products with acrylamide and paraformaldehyde
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(metal deactivator; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)
- IT 69-72-7DP, Salicylic acid, alkylated, **magnesium** salts 98-11-3DP, Benzenesulfonic acid, alkyl derivs., **calcium** salts, overbased, reaction products with polyisobutenylsuccinic anhydride 108-30-5DP, Succinic anhydride, poly(iso)butenyl derivs., reaction products with alkylated benzenesulfonic acids 108-95-2DP, Phenol, polyisobutene-substituted, polymers with formaldehyde, sulfurized 112-57-2DP, Tetraethylenepentamine, reaction products with polyisobutenylsuccinic anhydride 115-11-7DP, Isobutylene, sulfurized 2555-08-0P 6493-77-2P, 1,3-Butadiene-methyl acrylate adduct 6493-78-3DP, sulfurized 6493-78-3P 6493-79-4DP, sulfurized 6493-79-4P 37981-14-9DP, sulfurized 37981-14-9P 37981-16-1P 37981-17-2P 37981-18-3P 37981-19-4P 38094-70-1P, Acrylonitrile-isoprene adduct 38094-73-4DP, Butyl acrylate-isoprene adduct, sulfurized 38097-78-8DP, sulfurized 38097-78-8P 59321-72-1DP, Isoprene-methyl methacrylate adduct, sulfurized 59321-72-1P, Isoprene-methyl methacrylate adduct

75659-02-8DP, reaction products with polyisobutenylsuccinic anhydride, calcium salts, carbonated 87855-94-5P
88841-38-7P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PREP (Preparation); USES (Uses)

(performance additives; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)

IT 158854-65-0, TLA 233 158859-24-6, Acryloid 1267 163663-39-6,
Viscoplex 10-930 168041-35-8, Acryloid 5089 168042-37-3,
Viscoplex 0-410

RL: MOA (Modifier or additive use); USES (Uses)

(performance additives; for high monounsaturated vegetable oils and for high monounsaturated vegetable oils/biodegradable base and fluid mixts.)

L38 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:570991 HCAPLUS

DOCUMENT NUMBER: 122:303126

TITLE: Pressure-sensitive copying paper for optical recording

INVENTOR(S): Kagota, Nobuhiro; Shito, Katsuya

PATENT ASSIGNEE(S): Mitsubishi Paper Mills Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

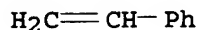
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07052533	A2	19950228	JP 1993-197543	19930809
PRIORITY APPLN. INFO.: JP 1993-197543				19930809

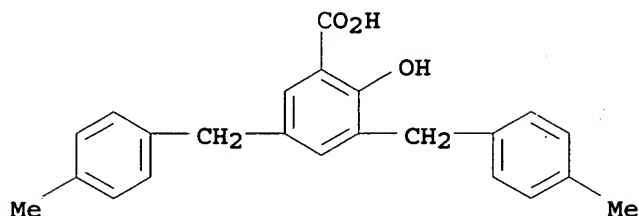
AB In producing a color image for optical reading using the title pressure-sensitive copying paper utilizing a color developing layer comprising an electron acceptor color developer, a pigment, and an adhesive, on a support, and effecting color image formation by reaction of a color former with the above color developer, the pigment used is a combination of low-d. CaCO₃ and kaolin whose oil absorptivity is $\geq 35\text{mL}/100\text{g}$ (JIS K5101). The pigment is preferably aragonite-type cylindrical CaCO₃ 10-90 and kaolin 10-50%, and the developer is a salicylic acid-type material.

IT 100-42-5DP, Styrene, reaction product with 3,5-di(4-methylbenzyl)salicylic acid, zinc salt
117028-71-4DP, 3,5-Di(4-methylbenzyl)salicylic acid, reaction product with styrene, zinc salt
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(developer; pressure-sensitive recording medium using)

RN 100-42-5 HCAPLUS
 CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



RN 117028-71-4 HCAPLUS
 CN Benzoic acid, 2-hydroxy-3,5-bis[(4-methylphenyl)methyl]- (9CI) (CA INDEX NAME)



IC ICM B41M005-124
 ICS B41M005-155
 CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST pressure sensitive copying paper optical reading
 IT Copying paper
 (for optical recording)
 IT Kaolin, uses
 RL: DEV (Device component use); USES (Uses)
 (pressure-sensitive copying paper using)
 IT Phenolic resins, uses
 RL: DEV (Device component use); USES (Uses)
 (pressure-sensitive recording medium using)
 IT 471-34-1, Calcium carbonate, uses
 RL: DEV (Device component use); USES (Uses)
 (aragonite-type; pressure-sensitive copying paper using)
 IT 25820-85-3, Formaldehyde-p-phenylphenol copolymer 132404-58-1
 RL: DEV (Device component use); USES (Uses)
 (developer; pressure-sensitive recording medium using)
 IT 100-42-5DP, Styrene, reaction product with
 3,5-di(4-methylbenzyl)salicylic acid, zinc salt
 117028-71-4DP, 3,5-Di(4-methylbenzyl)salicylic acid,
 reaction product with styrene, zinc salt
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (developer; pressure-sensitive recording medium using)

L38 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1993:90980 HCAPLUS
 DOCUMENT NUMBER: 118:90980
 TITLE: Color-forming sheet for carbonless copying paper
 INVENTOR(S): Tatezawa, Shingo; Shito, Katsuya
 PATENT ASSIGNEE(S): Mitsubishi Electric Corp., Japan
 SOURCE: Jpn. Kokai Tokyo Koho, 6 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04193581	A2	19920713	JP 1990-327042	19901128
PRIORITY APPLN. INFO.:				19901128

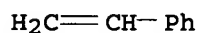
AB A carbonless copying paper composed of a color-forming layer contg. an electron-accepting developer, an adhesive, and a dye is characterized in that the electron-accepting developer is made of an org. developer and the dye is made of CaCO₃ with BET surface relative surface area 25-55 m²/g, a ratio of BET surface relative surface area to av. grain diam (μm) 5-110, an oil adsorbing quantity det. by the Ogura method ≥120 mL/100g, and a H₂O-adsorbing quantity ≥1.8 g/g.

IT 100-42-5D, Styrene, reaction product with 3,5-di(4-methylbenzyl)salicylic acid, polymer, zinc salt
 117028-71-4D, 3,5-Di(4-methylbenzyl)salicylic acid, reaction product with styrene, polymer, zinc salt
 RL: USES (Uses)

(color-forming sheet for carbonless copying paper from)

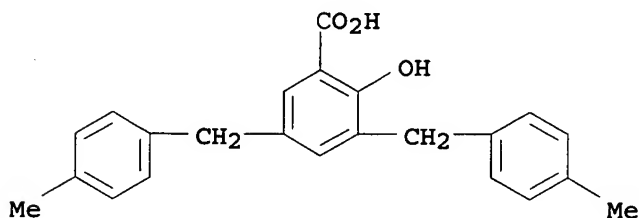
RN 100-42-5 HCAPLUS

CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



RN 117028-71-4 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis[(4-methylphenyl)methyl]- (9CI) (CA INDEX NAME)



IC ICM B41M005-155

CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST color forming sheet copying paper; carbonless copying paper

IT Copying paper
(color-forming sheet for)
IT 100-42-5D, Styrene, reaction product with
3,5-di(4-methylbenzyl)salicylic acid, polymer, zinc salt 471-34-1,
Calcium carbonate, properties 117028-71-4D,
3,5-Di(4-methylbenzyl)salicylic acid, reaction product with styrene,
polymer, zinc salt
RL: USES (Uses)
(color-forming sheet for carbonless copying paper from)

L38 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:546680 HCAPLUS
DOCUMENT NUMBER: 115:146680
TITLE: Developer sheet for pressure-sensitive recording
INVENTOR(S): Takahashi, Shunsuke
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

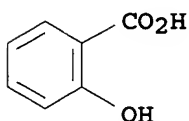
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 03042273	A2	19910222	JP 1989-178379	198907 10
PRIORITY APPLN. INFO.:			JP 1989-178379	198907 10

AB The title sheet providing sharp images with microencapsulated color
formers in good efficiency comprises a developer layer from a
developing agent, pigment, binder on a support sheet, wherein
difference between the developer sheet and support sheet in castor
oil penetration time (ASTM D780-74) is <80 s.

IT 69-72-7D, derivs., zinc salt, polymers
RL: USES (Uses)
(developers, in developer sheets, for pressure-sensitive copying
paper)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IT 100-42-5D, Styrene, acrylic copolymers
RL: USES (Uses)
(in developer sheets, for pressure-sensitive copying paper)
RN 100-42-5 HCAPLUS

CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

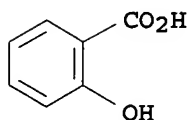
 $\text{H}_2\text{C}=\text{CH}-\text{Ph}$

IC ICM B41M005-155
CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pressure sensitive copying paper developer
IT Rubber, butadiene-styrene, uses and miscellaneous
RL: USES (Uses)
(in developer sheets, for pressure-sensitive copying paper)
IT Copying paper
(pressure-sensitive, developer sheets for, with specific castor oil penetration rate, for improved performance)
IT 69-72-7D, derivs., zinc salt, polymers 135991-78-5, SRE
RL: USES (Uses)
(developers, in developer sheets, for pressure-sensitive copying paper)
IT 100-42-5D, Styrene, acrylic copolymers 471-34-1, Calcium carbonate, uses and miscellaneous 1344-28-1, Alumina, uses and miscellaneous 9005-25-8D, Starch, oxidized 136109-96-1, XMP 100
RL: USES (Uses)
(in developer sheets, for pressure-sensitive copying paper)
IT 9003-55-8
RL: USES (Uses)
(rubber, in developer sheets, for pressure-sensitive copying paper)

L38 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:210422 HCAPLUS
DOCUMENT NUMBER: 114:210422
TITLE: Partially synthetic engine oil
INVENTOR(S): Stepina, Vaclav; Marek, Miroslav; Mostecky, Jiri; Stanko, Nikolaj; Weisser, Otto; Zeman, Vladimir
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 8 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CS 262876	B1	19890414	CS 1986-10053	19861228
PRIORITY APPLN. INFO.:			CS 1986-10053	19861228

- AB The oil consists of poly-n-butene oil ≥ 10 , mineral oil raffinate (viscosity index ≥ 90) ≥ 30 , **detergents-dispersants** (e.g., **Ca** and/or **Mg** alkylarylsulfonate, **Ca** and/or **Mg** alkylphenolate, **Ca** and/or alkylsalicylate, succinimide, bissuccinimide, Mannich bases, ester of alkenylmaleic anhydride and pentaerythritol) 1.5-18, antioxidant (alkyl-, alkylaryl-, or diaryldithiophosphate Zn salt) 0.5-3, viscosity modifier (e.g., polymethacrylate, ethylene-propylene copolymer, diene-**styrene** copolymer) 0.3-15, **lubricant** (e.g., graphite, MoS₂, K borate, fatty alcs., fatty acids, fatty esters) ≤ 8 , antioxidant (alkylphenol) ≤ 1 , and antifoaming agent (e.g., polymethylsiloxane, polyvinylsiloxane) ≤ 0.01 wt.%. Thus, base oil was prepd. by mixing 83.5 mineral oil (viscosity index 105) and 16.5 wt.% distn. residue of hydrogenated n-polybutenes. The base oil 81.497 was modified by additives 18.503 wt.%. The additives consisted of Zn di-C8-alkyldithiophosphate 0.9, Zn di-C4-6-alkyl-dithiophosphate (Oloa 267) 0.5, **Ca** petroleum alkylarylsulfonate 3.5, **Ca** alkylphenolsulfide 1.5, **Ca** alkylsalicylate 3.5, bissuccinimide 5.2, isoprene-**styrene** copolymer 0.4, polymethacrylate 3.0, and silicone oil 0.003 wt.%. The resulting product had a kinematic viscosity at 100° 15.15 mm²/s, viscosity index 133, and pour point -38°.
- IT 69-72-7D, alkyl derivs., **calcium** and **magnesium** salts
RL: USES (Uses)
(**lubricating** oil contg., partially synthetic)
- RN 69-72-7 HCAPLUS
- CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



- IC ICM C10M107-08
- CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
- ST **lubricating** oil partial synthetic; polybutene mineral oil mixt **lubricant**
- IT Fatty acids, esters
RL: USES (Uses)
(C10+, esters, **lubricating** oil contg., partially synthetic)
- IT Fatty acids, uses and miscellaneous
RL: USES (Uses)
(C10+, **lubricating** oil contg., partially synthetic)
- IT Hydrocarbon oils
RL: USES (Uses)
(**lubricating** oil contg., partially synthetic)
- IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)
(di-Me, **lubricating** oil contg., partially synthetic)

IT Alcohols, uses and miscellaneous
RL: USES (Uses)
(fatty, C10+, **lubricating** oil contg., partially
synthetic)

IT **Lubricating** oils
(synthetic, partially, mineral oil-polybutene mixts.)

IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)
(vinyl group-contg., **lubricating** oil contg., partially
synthetic)

IT 69-72-7D, alkyl derivs., **calcium** and
magnesium salts 79-41-4D, Methacrylic acid, esters,
polymers 108-95-2D, Phenol, alkyl derivs., **calcium** and
magnesium salts 108-98-5D, Benzenethiol, alkyl derivs.,
calcium salts 123-56-8, 2,5-Pyrrolidinedione 123-56-8D,
2,5-Pyrrolidinedione, bis derivs. 1317-33-5, Molybdenum sulfide
(MoS2), uses and miscellaneous 7782-42-5, Graphite, uses and
miscellaneous 9003-28-5D, Polybutene, hydrogenated 9010-79-1,
Ethylene-propylene copolymer 12712-38-8 15834-33-0D,
Dithiophosphoric acid, dialkyl esters, zinc salts 25038-32-8,
Isoprene-styrene copolymer 69992-92-3, Oloa 267
RL: USES (Uses)
(**lubricating** oil contg., partially synthetic)

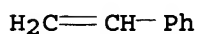
L38 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:45311 HCAPLUS
DOCUMENT NUMBER: 114:45311
TITLE: Developer sheets for noncarbon
pressure-sensitive recording material
INVENTOR(S): Torii, Nobuhiro; Furusawa, Kenzo
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02219680	A2	19900903	JP 1989-41029	198902 20
PRIORITY APPLN. INFO.:				JP 1989-41029 198902 20

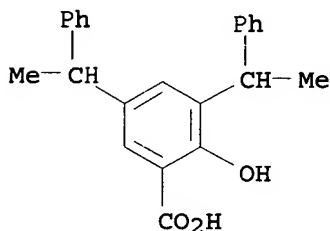
AB Developer sheets for electron donating colorless leuco dyes contain
electron-accepting org. developers and a natural fibrous clay
pigment (sepiolite). Thus, a compn. of water 57, 10% Na
hexametaphosphate 10, sepiolite (Milcon SP) 3, kaolin 47, and
Ca carbonate 50 parts was mixed with 40 parts dispersion of
Zn 3,5-di(α -methylbenzyl)salicylate 100, 10% aq. poly(vinyl
alc.) 50, and water 250 parts, 100 parts 10% aq. oxidized starch,
and 25 parts 48% carboxylated styrene-butadiene copolymer latex,

coated on paper, and dried to prep. a developer sheet having good coloring speed and drying properties for a desensitized ink.

- IT 100-42-5D, Styrene, reaction products with di(methylbenzyl)salicylic acid, zinc salts 53721-15-6D, 3,5-Di(α-methylbenzyl)salicylic acid, reactions products with benzyl chloride and styrene, zinc salts
 RL: USES (Uses)
 (developers, contg. sepiolite, for pressure-sensitive copying paper)
- RN 100-42-5 HCAPLUS
 CN Benzene, ethenyl- (9CI) (CA INDEX NAME)



- RN 53721-15-6 HCAPLUS
 CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)- (9CI) (CA INDEX NAME)



- IC ICM B41M005-155
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
 Section cross-reference(s): 41, 74
 ST pressure sensitive recording developer; sepiolite pigment methylbenzylsalicylate developer sheet
 IT Copying paper
 (pressure-sensitive, developer sheets for, contg. zinc di(methylbenzyl)salicylate and sepiolite pigment)
- IT 100-42-5D, Styrene, reaction products with di(methylbenzyl)salicylic acid, zinc salts 100-44-7D, Benzyl chloride, reaction products with di(methylbenzyl)salicylic acid, zinc salts 53721-15-6D, 3,5-Di(α-methylbenzyl)salicylic acid, reactions products with benzyl chloride and styrene, zinc salts 53770-52-8, Zinc 3,5-di-(α-methylbenzyl)salicylate
 RL: USES (Uses)
 (developers, contg. sepiolite, for pressure-sensitive copying paper)
- IT 63800-37-3, Sepiolite
 RL: USES (Uses)
 (pigments, developer sheets contg., for pressure-sensitive copying paper)

L38 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1990:500694 HCAPLUS
 DOCUMENT NUMBER: 113:100694

TITLE: Fuel-saving motor oil
 INVENTOR(S): Nater, Pavel; Janosik, Stefan; Kopernicky, Ivan;
 Bucko, Milos; Stuchlik, Jiri; Kotek, Jiri;
 Stacho, Dusan; Stanko, Nikolaj; Nadvornik,
 Frantisek
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 4 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Slovak
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

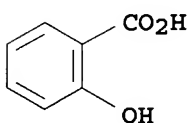
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 263153	B1	19890414	CS 1985-610	198501 29
PRIORITY APPLN. INFO.:			CS 1985-610	198501 29

AB The title oil comprises petroleum oil contg. <10 wt.% arom. hydrocarbons and having viscosity index ≥ 90 , zinc dialkyldithiophosphate 0.5-1.5, preferably 1.2, basic alk. **earth metal** salicylate (e.g., basic **Ca** salicylate, basic **Mg** salicylate) 1-7, preferably 2.5, bissuccinimide 1-5, preferably 3, pentaerythritol alkenylsuccinate 0.2-4.0, preferably 1.0, fatty acid amide (e.g., oleic acid amide) 0.1-3, preferably 0.5, **styrene**-isoprene copolymer 0.6-2.0, preferably 1.1, and polymethacrylate 0.05-7, preferably 0.5 wt.%. The oil reduces internal motor friction and decreases fuel consumption.

IT 69-72-7D, Salicylic acid, alk. **earth metal** salts, basic
 RL: USES (Uses)
 (motor oils contg., fuel-saving)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M141-00

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

ST fuel saving motor oil; zinc alkyldithiophosphate motor oil; **calcium** salicylate motor oil; **magnesium** salicylate motor oil; succinimide motor oil; pentaerythritol alkenylsuccinate motor oil; fatty acid amide motor oil; oleic acid amide motor oil; **styrene** isoprene copolymer motor oil; polymethacrylate motor

oil
 IT **Lubricating oils**
 (crankcase, compns. of, fuel-saving)
 IT Amides, uses and miscellaneous
 RL: USES (Uses)
 (fatty, motor oils contg., fuel-saving)
 IT **69-72-7D**, Salicylic acid, alk. **earth metal**
 salts, basic 79-41-4D, Methacrylic acid, esters, polymers
 301-02-0, Oleic acid amide 3741-24-0, [1,1'-Bipyrrolidine]-
 2,2',5,5'-tetrone 15834-33-0D, Phosphorodithioic acid, dialkyl
 esters, zinc salts 25038-32-8, Isoprene-**styrene**
 copolymer
 RL: USES (Uses)
 (motor oils contg., fuel-saving)

L38 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:9729 HCAPLUS

DOCUMENT NUMBER: 112:9729

TITLE: Borated and non-borated overbased carboxylates
 as corrosion inhibitors for gear oils

INVENTOR(S): Tipton, Craig Daniel

PATENT ASSIGNEE(S): Lubrizol Corp., USA

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8909811	A1	19891019	WO 1989-US1339	198903 31
W: AU, JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8934469	A1	19891103	AU 1989-34469	198903 31
AU 626859	B2	19920813		
EP 362365	A1	19900411	EP 1989-904972	198903 31
EP 362365	B1	19971029		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 02503929	T2	19901115	JP 1989-504737	198903 31
JP 2936071	B2	19990823		
CA 1317278	A1	19930504	CA 1989-594967	198903 31
AT 159753	E	19971115	AT 1989-904972	198903 31

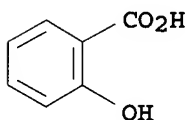
ZA 8902471	A	19891227	ZA 1989-2471	198904 04
US 4938882	A	19900703	US 1989-408432	198909 15
PRIORITY APPLN. INFO.:		US 1988-179087	A	198804 08
		WO 1989-US1339	A	198903 31

AB A gear oil formulation contains a major amt. of a base oil (>40 cSt at 40°), an overbased carboxylate in a borated or non-borated form as corrosion inhibitor, and a sulfurized olefin. A compn. having improved anticorrosion properties was prep'd. by adding a viscosity index improver (reaction product of maleic anhydride-styrene copolymer, EtOH, and an amine) 1, a sulfurized olefin 3, an antiwear agent (epoxide-treated dialkylphosphorodithioate) 3, a borated Ca carboxylate 1, RNC3H6N (R = tallow) 0.2, and a polymeric antifoam agent 0.075 wt.%, to a base oil.

IT 69-72-7D, Salicylic acid, C16-24-alkylated, magnesium salts, overbased, (non)borated
RL: USES (Uses)
(corrosion inhibitors, for gear oils)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M159-20
ICS C10M163-00

ICI C10M163-00, C10M135-04, C10M159-20; C10N030-12, C10N040-04, C10N060-14

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

ST gear oil overbased borated carboxylate; lubricating oil
gear corrosion inhibitor; calcium carboxylate borated
corrosion inhibitor; sulfurized olefin gear oil additive

IT Antifoaming agents
(polymeric, gear oils contg., (non)borated overbased carboxylates
as corrosion inhibitors in)

IT Carboxylic acids, compounds
RL: USES (Uses)
(calcium salts, borated, corrosion inhibitors, for gear
oils)

IT Lubricating oil additives
(corrosion inhibitors, (non)borated overbased carboxylates, for

- gear oils)
- IT Alkenes, compounds
RL: USES (Uses)
(sulfurized, antioxidants, gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT Fatty acids, compounds
RL: USES (Uses)
(tall-oil, salts, overbased, (non)borated, corrosion inhibitors, for gear oils)
- IT 15834-33-0D, Phosphorodithioic acid, dialkyl esters, epoxide-treated
RL: USES (Uses)
(antiwear agents, gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT 89347-09-1, Amoco 158
RL: USES (Uses)
(ashless inhibitor, gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT 57-11-4D, Stearic acid, salts, overbased, (non)borated 60-33-3D, Linoleic acid, salts, overbased, (non)borated 69-72-7D, Salicylic acid, C16-24-alkylated, **magnesium** salts, overbased, (non)borated 112-80-1D, Oleic acid, salts, overbased, (non)borated 143-07-7D, Lauric acid, salts, overbased, (non)borated 7439-95-4D, **Magnesium**, salts with carboxylic acids, overbased, (non)borated 7440-23-5D, Sodium, salts with carboxylic acids, overbased, (non)borated 7440-70-2D, **Calcium**, salts with carboxylic acids, overbased, (non)borated 10043-35-3D, Boric acid, reaction products with overbased alkylated salicylic acid **magnesium** salts
RL: USES (Uses)
(corrosion inhibitors, for gear oils)
- IT 7664-38-2D, Phosphoric acid, esters, amine-neutralized
RL: USES (Uses)
(gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT 9011-13-6, Maleic anhydride-**styrene** copolymer
RL: USES (Uses)
(pour point depressant, gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT 9011-13-6D, Maleic anhydride-**styrene** copolymer, reaction products with alc. and amine
RL: USES (Uses)
(pour point depressants, gear oil contg., (non)borated overbased carboxylates as corrosion inhibitors in)
- IT 64-17-5D, Ethanol, reaction products with maleic anhydride-**styrene** copolymer and amine
RL: USES (Uses)
(viscosity index improvers-pour depressants, gear oils contg., (non)borated overbased carboxylates as corrosion inhibitors in)

L38 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:495833 HCAPLUS

DOCUMENT NUMBER: 109:95833

TITLE: Multigrade oil for lubrication of heavy-duty diesel engines

INVENTOR(S): Stepina, Vaclav; Stanko, Nikolaj; Matejovsky, Vladimir; Safarik, Milos

PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 9 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Czech
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CS 236333	B1	19850515	CS 1983-8400	198311 14
				198311 14

PRIORITY APPLN. INFO.: CS 1983-8400

AB The lubricating oil (viscosity class SAE 20W40) consists of a base oil (consisting of 40-60% high-pressure hydrogenate and balance selective raffinates) 75-83, Zn di-C8-10-n-alkyldithiophosphate 0.8-1.4, Zn alkylaryldithiophosphate 2.2-3.2, Zn di-C3-6-alkyldithiophosphate 0.2-0.6, Ca alkylacylsulfonate 1-5, Ca alkylphenolsulfide 1-5, Ca alkylsalicylate 1-5, Ca alkylphenolsulfide 1-5, bissuccinimide or (2-3):1 bissuccinimide-monosuccinimide mixt. 3-6, isoprene-styrene or butadiene-styrene copolymer 0.3-0.8, isobutylene 0.5-2, polymethacrylate 2.5-5, and silicone oil antifoaming additive 0.002-0.004%,. The lubricating oil is suitable for diesel engines operating under high loads. Thus, the lubricating oil was prepd. from a base oil [consisting of high-pressure hydrogenate [viscosity 6.2 mm²/s at 100°, viscosity index (VI) 105] 50, selective raffinate (viscosity 7.2 mm²/s at 110°, VI 87) 35, and residual selective raffinate (viscosity 25.3 mm²/s at 110°, VI 84) 15 wt.%] 81.497, Oloa 3269A (Zn di-n-C8-alkyldithiophosphonate) 0.9, Oloa 267 (Zn di-n-C4-6-alkyldithiophosphonate) 0.5, Petrosulfonat 30 (Ca petroleum alkylarylsulfonate) 3.5, Oloa 219 (Ca alkylphenolsulfide) 1.5, AC 60C (Ca alkylsalicylate) 3.5, Oloa 3373 C (bissuccinimide) 5.2, Sheelvis 50 (isoprene-styrene copolymer) 0.4, Plexol 956 (polymethacrylate) 3.0, and MS 200 (silicone oil) 0.003%. The resulting oil had a kinematic viscosity of 15.08 mm²/p at 100°, dynamic viscosity of 8.9 Pa-s at -18°, VI 131, flammability point 222°, pour point -38°, content of water and mech. impurities 0, sulfate ash 1.59 wt.%, improved antirusting properties, and satisfactory engine starting ability at -15°.

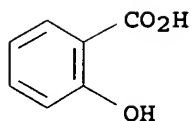
IT 69-72-7D, Salicylic acid, calcium salts, alkyl derivs.

RL: USES (Uses)

(lubricating oil contg., for diesel engines operating under high loads)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC ICM C10M001-14
 CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
 ST lubricating oil diesel engine
 IT Lubricating oils
 (for diesel engines operating under high loads)
 IT Siloxanes and Silicones, uses and miscellaneous
 RL: USES (Uses)
 (lubricating oil contg., for diesel engines operating under high loads)
 IT Sulfonic acids, compounds
 RL: USES (Uses)
 (calcium salts, lubricating oil contg., for diesel engines operating under high loads)
 IT Rubber, synthetic
 RL: USES (Uses)
 (isoprene-styrene, lubricating oil contg., for diesel engines operating under high loads)
 IT 69-72-7D, Salicylic acid, calcium salts, alkyl derivs. 79-41-4D, Methacrylic acid, esters, polymers 7059-16-7, Oloa 3269A 11059-65-7, Oloa 260 15834-33-0D, Dithiophosphoric acid, esters, zinc salts 69992-92-3, Oloa 267 70852-44-7, Plexol 956 74967-04-7, Oloa 219 81611-90-7, AC 60C 114453-72-4, Oloa 3373C
 RL: USES (Uses)
 (lubricating oil contg., for diesel engines operating under high loads)

L38 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:207529 HCAPLUS

DOCUMENT NUMBER: 108:207529

TITLE: Complex additive for the preparation of multigrade engine oils with stable viscosity
 INVENTOR(S): Stepina, Vaclav; Tesitel, Jaroslav; Sebek, Zdenek; Holub, Ludek; Pribyl, Miroslav; Spicka, Vladimir

PATENT ASSIGNEE(S): Czech.

SOURCE: Czech., 12 pp.
 CODEN: CZXXA9

DOCUMENT TYPE: Patent

LANGUAGE: Czech

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 240186	B1	19860213	CS 1983-8944	19831201

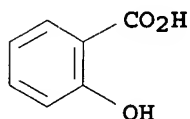
PRIORITY APPLN. INFO.:

CS 1983-8944

198312

01

- AB The balanced additive to all-season engine oils with a viscosity of 609 mm²/s at 100° and viscosity index ≥85, considering synergistic effect of components, consists of Zn di-(C3-10-alkyl)dithiophosphate 2-10, Zn (C3-10-alkyl)aryldithiophosphate 6.6-13.6, Ca or Mg (C15-35-alkyl)arylsulfonates 1.5-12.0, Ca or Mg (C5-40-alkyl)phenolsulfide, or Ca (C8-20-alkyl)salicylate 6-20, succinimide (I) and/or bis(succinimide) contg. 1.0-2.3% N and B at a B-N wt. ratio of (0.1-5.5):1 or the product of Mannich reaction or a (1-1.5):1 mixt. of I with pentaerythritol ester of alkenylmaleic anhydride 10-23, **styrene** (II)-isoprene or II-butadiene copolymer contg. 50-70% II (mol. wt. 4-10 + 104) 0.8-3, polyisobutylene (III; mol. wt. 25-40 + 103) or atactic polypropylene (IV; mol. wt. 2-4 + 104) 1.5-9, disperse type of poly(Me methacrylate) (mol. wt. 15-60 + 104) 5.8-18, silicone oil as an antifoaming agent 0.005-0.03%, and diln. oil (viscosity 5.5-7.0 mm²/s at 100°) balance. The II copolymers, III, and IV may be replaced with 10-17% of a 10-15% oil soln. of the (0.4-1.5):1 ethylene-propylene copolymer (mol. wt. 7-10 + 104). The compns. of engine oils with viscosity classes SAE 15W30, 15W40, and 20W40 and power output classes API SD/CB, SF/ML, and SE/CD are given.
- IT 69-72-7D, Salicylic acid, C8-20-alkyl derivs., **calcium** salts
RL: USES (Uses)
(engine oil additives for)
- RN 69-72-7 HCAPLUS
- CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



- IC ICM C09K003-14
- CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
- ST engine oil multigrade additive compn; zinc dialkyldithiophosphate engine oil additive; alkylaryldithiophosphate zinc engine oil additive; alkylarene sulfonate **magnesium** engine oil; alkylphenolsulfide salicylate engine oil additive; succinimide Mannich product engine oil; **styrene** isoprene copolymer engine oil; butadiene **styrene** copolymer engine oil; polyisobutylene polypropylene polymethylmethacrylate engine oil; silicone oil antifoamer engine oil; ethylene propylene copolymer engine oil
- IT Siloxanes and Silicones, uses and miscellaneous
RL: USES (Uses)
(antifoamer, engine oil additives contg.)
- IT Mannich reaction

- (of bis(succinimide), as engine oil additives)
- IT Sulfonic acids, compounds
RL: USES (Uses)
(C15-35-alkylarene, **calcium** salts, engine oil additives contg.)
- IT Sulfonic acids, compounds
RL: USES (Uses)
(C15-35-alkylarene, **magnesium** salts, engine oil additives contg.)
- IT **Lubricating** oils
(crankcase, multigrade, viscosity-stable, prepn. of)
- IT 9003-07-0, Polypropylene
RL: USES (Uses)
(atactic, engine oil additives contg.)
- IT 108-31-6D, Maleic anhydride, alkenyl derivs., esters with pentaerythritol, mixts. with succinimide 9003-27-4, Polyisobutylene 9003-55-8, **Styrene**-butadiene copolymer 9010-79-1, Ethylene-propylene copolymer 9011-14-7, Poly(methyl methacrylate) 15834-33-0D, Phosphorodithioic acid, di-C3-10-alkyl or C3-10-alkylaryl esters, zinc salts 25038-32-8, **Styrene**-isoprene copolymer
RL: USES (Uses)
(engine oil additives contg.)
- IT 69-72-7D, Salicylic acid, C8-20-alkyl derivs., **calcium** salts 123-56-8, Succinimide 114453-72-4
RL: USES (Uses)
(engine oil additives for)

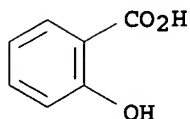
L38 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:639475 HCAPLUS
DOCUMENT NUMBER: 107:239475
TITLE: Inhibition of the thermooxidative degradation of polymeric viscosity regulators
AUTHOR(S): Likhterov, S. D.; Shor, G. I.; Baranov, V. A.; Klimov, A. K.
CORPORATE SOURCE: USSR
SOURCE: Khimiya i Tekhnologiya Topliv i Masel (1987), (10), 28-30
CODEN: KTPMAG; ISSN: 0023-1169
DOCUMENT TYPE: Journal
LANGUAGE: Russian

- AB The lowering of **lubricating** oil viscosity (η) during heating in the presence of metals and air is due to the thermal-oxidative degrdn. of polymeric additives. The effect was studied of **Ca** alkylsalicylate and **Ca** alkylphenoxide on the stability of butadiene-**styrene** copolymer and poly(Me methacrylate) η regulators and on the decrease of η during heating of a **lubricating** oil contg. these additives in a stirred, open glass container contg. steel or Al foil and also of a **lubricating** oil heated to 220° with bubbling of air. About 1% concn. of these additives was sufficient to suppress the degrdn. of these polymeric η regulators.
- IT 69-72-7D, Salicylic acid, alkyl derivs., **calcium** salts
RL: USES (Uses)

(stabilizers, for polymeric viscosity regulators in
lubricating oils)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



CC 51-8 (Fossil Fuels, Derivatives, and Related
Products)

Section cross-reference(s): 38

ST lubricating oil decompn viscosity regulator; stabilization
viscosity lubricating oil alkylsalicylate; alkylphenoxide
viscosity lubricating oil stabilization

IT Lubricating oil additives
(viscosity regulators, stabilizers for)

IT 69-72-7D, Salicylic acid, alkyl derivs., calcium
salts 5793-84-0D, Calcium phenoxide, alkyl derivs.

RL: USES (Uses)

(stabilizers, for polymeric viscosity regulators in
lubricating oils)

IT 9003-55-8 9011-14-7, Poly(methylmethacrylate)

RL: USES (Uses)

(viscosity regulators, degnrn. of, in lubricating oils,
stabilizers for redn. of)

L38 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:594304 HCAPLUS

DOCUMENT NUMBER: 105:194304

TITLE: Additives for reducing bearing noise in high
pour-point lithium complex lubricating
greases

INVENTOR(S): Tanaka, Norimitsu; Tajiri, Hiroshi

PATENT ASSIGNEE(S): Shell Sekiyu K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

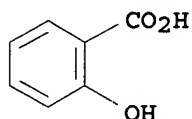
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 61141794	A2	19860628	JP 1985-280188	198512 14
JP 63019559	B4	19880422		
PRIORITY APPLN. INFO.:			JP 1985-280188	198512 14

- AB Noise-reducing additives (for bearings) for high pour-point Li complex soap **lubricating** greases are C10-34 or C12-24-hydroxy fatty acid Li salt 5-30, C4-12 fatty dicarboxylic acid or boric acid Li salt 0.5-10, and succinimides or other dispersants 0.1-5 wt. parts in 100 wt. parts mineral oils (20-200 cSt at 40°) as a typical base oil among other possible petroleum products. The noise-proofing property is improved by increasing the dispersion of the metal salts into the base oils. These dispersants are: (1) lipophilic polymers, e.g., poly(Me methacrylate) (av. mol. wt. 100,000-300,000), hydrogenated butadiene-**styrene** copolymer (I, av. mol. wt. 80,000-160,000), hydrogenated isoprene-**styrene** copolymer (av. mol. wt. 80,000-160,000), ethylene-propylene copolymer (av. mol. wt. 80,000-160,000), or their mixts.; (2) succinimides (reaction products of polybutenylsuccinic anhydrides and polyamines); or (3) org. metal sulfonates, phenates, phosphonates, and salicylates. A **lubricating** grease was prepd. in several steps from paraffin oil 223.5, I (av. mol. wt. 130,000) 300, 12-hydroxystearic acid 270, LiOH (total, added in 2 unequal portions) 68.7, azelaic acid 67.8, and diphenylamine octylate (antioxidant) 60 g. The product grease had a consistency 245, Shell roll test result (ASTM 1831 D) 120 (before) and 152 (after) at 100° for 5 h, pour point (JIS K2220) 275°, and grease-dust acoustic test result (Kokai Sho 53-2357) 92 after 120 s.
- IT 69-72-7D, alk. **earth metal salts**
 RL: USES (Uses)
 (dispersants, for lithium soap **lubricating** greases)
- RN 69-72-7 HCAPLUS
- CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



- IC ICM C10M169-06
- ICA C10M135-02; C10M135-10; C10M137-12
- ICI C10M169-06, C10M117-06, C10M113-08, C10M133-56, C10M117-02, C10M117-04; C10N030-02, C10N030-04, C10N040-14, C10N050-10
- CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
 Section cross-reference(s): 38, 46
- ST **lubricating** grease lithium soap bearing; antinoise bearing **lubricating** grease; dispersant **lubricating** grease bearing noise; succinimide dispersant **lubricating** grease; lipophilic polymer dispersant grease; sulfonate dispersant **lubricating** grease; phenate dispersant **lubricating** grease; phosphonate dispersant **lubricating** grease; salicylate dispersant **lubricating** grease
- IT Phenols, compounds
 RL: USES (Uses)
 (alk. **earth metal salts**, **lubricating** grease dispersants)
- IT Sulfonic acids, compounds

- RL: USES (Uses)
(alkali or alk. **earth metal** salts,
dispersants, for lithium soap **lubricating greases**)
- IT Alkaline earth compounds
RL: USES (Uses)
(dispersants, for **lubricating greases**)
- IT Dispersing agents
(lipophilic polymers or succinimides or metal org. compds., for
lithium soap **lubricating greases**, for bearing noise
redn.)
- IT Polymers, uses and miscellaneous
RL: USES (Uses)
(lipophilic, **lubricating grease** dispersants)
- IT Alkali metals, compounds
RL: USES (Uses)
(salts, dispersants, for **lubricating greases**)
- IT Fatty acids, compounds
RL: USES (Uses)
(castor-oil, lithium salts, **lubricating grease**
additives)
- IT **Lubricating grease** additives
(dispersants, lipophilic polymers or succinimides or metal org.
compds., antinoise, for lithium soaps)
- IT Sound and Ultrasound
(noise, redn. of, from bearings, **lubricating greases**
for)
- IT Petroleum products
(oils, **lubricating grease** base oil, antinoise
dispersants for)
- IT 824-35-1 9003-27-4 9003-55-8D, hydrogenated 9010-79-1
9011-14-7 25038-32-8D, hydrogenated
RL: USES (Uses)
(dispersant, for lithium soap **lubricating greases**)
- IT 69-72-7D, alk. **earth metal** salts
123-56-8D, derivs. 13598-36-2D, alk. **earth metal**
salts 51962-95-9D, polyisobutenyl derivs. 52300-97-7D,
polyisobutenyl derivs. 105136-37-6D, polyisobutenyl derivs.
RL: USES (Uses)
(dispersants, for lithium soap **lubricating greases**)
- IT 19370-86-6 38900-29-7
RL: USES (Uses)
(**lubricating grease** additive, noise-reducing
dispersants for)
- IT 7439-93-2D, fatty acid salts 12676-27-6
RL: USES (Uses)
(**lubricating grease** additives, dispersants for)
- IT 18621-94-8
RL: USES (Uses)
(**lubricating grease** additives, noise-reducing
dispersants for)
- IT 7620-77-1
RL: USES (Uses)
(soaps, **lubricating grease** additive, noise-reducing
dispersants for)

L38 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:64771 HCAPLUS
DOCUMENT NUMBER: 102:64771
TITLE: Complex additives for all-season motor oils by
single-stage mixing with base oil
INVENTOR(S): Rabas, Vaclav; Stepina, Vaclav; Benes, Jan;
Sebek, Zdenek; Pribyl, Miroslav; Groetschlova,
Marta
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 6 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
CS 215929	B	19821029	CS 1978-1882	197803 24
PRIORITY APPLN. INFO.:			CS 1978-1882	197803 24

AB Compns. and data are given for complex concs. applicable by simple mixing with **lubricating** base oils. They contain a viscosity modifier, pour-point depressant, **detergent** -dispersant, and antioxidant. Thus, a base oil (viscosity 8.5 mm²/s/100°, viscosity index 96, pour point -12°, and flash point 225°) 43 was mixed at temps. gradually decreasing from 140 to 60° with polyisobutylene [9003-27-4] (mol. wt. 40,000) 16, isoprene-styrene copolymer [25038-32-8] (mol. wt. 100,000) 3.5, polymethacrylate (50% conc.) 4.5, **Ca** alkylphenolate (50% conc.) 14, bisuccinimide (55% conc.) 8, and dialkyl dithiophosphate (85% conc.) 11 parts. Mixing 88% base oil with 12% of the above additive conc. gave a **lubricating** oil which had viscosity 12.5 mm²/s/100°, viscosity index 116, pour point -32°, and flash point 226° and conformed with the API CB stds. for SAE 20W-30 motor oil and with the DEF 2101D specification in the Petter tests.

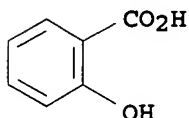
IT 69-72-7D, alkyl derivs., basic salts

RL: USES (Uses)

(**lubricating** oil additive conc. contg., mixing of)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC C10M001-08

CC 51-8 (**Fossil Fuels**, Derivatives, and Related

Products)
 ST **lubricating** oil additive conc mixing
 IT **Lubricating** oil additives
 (mixing of concs. of)
 IT **69-72-7D**, alkyl derivs., basic salts 79-41-4D, alkyl
 esters, polymers 108-95-2D, alkyl derivs, **calcium** salts
 123-56-8D, derivs. 9003-07-0 9003-27-4 9003-55-8
 15834-33-0D, dialkyl esters, salts 25038-32-8
 RL: USES (Uses)
 (**lubricating** oil additive conc. contg., mixing of)

L38 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1983:597809 HCAPLUS
 DOCUMENT NUMBER: 99:197809
 TITLE: High dropping-point lithium-complex grease
 having improved antinoise properties
 INVENTOR(S): Tanaka, Norimitsu; Tajiri, Hiroshi; Okamoto,
 Toshihiko
 PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B.
 V., Neth.
 SOURCE: Eur. Pat. Appl., 28 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 84910	A2	19830803	EP 1983-200077	198301 18
EP 84910	A3	19850116		
EP 84910	B1	19890222		
R: DE, FR, GB, NL, SE				
JP 58125794	A2	19830726	JP 1982-6757	198201 21
JP 63018996	B4	19880420		
JP 58125795	A2	19830726	JP 1982-6758	198201 21
JP 62044039	B4	19870917		
CA 1197231	A1	19851126	CA 1983-419892	198301 20
CA 1197232	A1	19851126	CA 1983-419902	198301 20
AU 8310675	A1	19830728	AU 1983-10675	198301 21
AU 554600	B2	19860828		
ZA 8300407	A	19831026	ZA 1983-407	198301

PRIORITY APPLN. INFO.: JP 1982-6757 A 21
198201
21

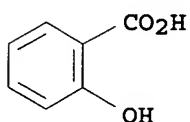
JP 1982-6758 A 198201
21

AB The title grease comprises a **lubricating** oil contg. the following components: (a) ≥ 1 Li soap selected from the group consisting of the Li salts of C10-34 fatty acids and C12-24 hydroxyfatty acids; (b) ≥ 1 Li salt selected from the group consisting of the di-Li salts of C4-12 aliph. dicarboxylic acids, the Li salts of boric acids, and the Li salts of arom. hydroxy carboxylic acids, and (c) a high-mol.-wt. viscosity index (VI) improver, and/or succinimide-type dispersant, and/or metal salt **detergent**. Thus, a refined paraffinic mineral oil (VI = 102) 2233.5, a 10% soln. in the oil of a hydrogenated butadiene-**styrene** copolymer (mean mol. wt. = .apprx.130,000) 300, and 12-hydroxystearic acid 270 g were mixed and heated to 80° to dissolve the acid. Then, 300 g of a hot aq. soln. contg. 38.5 g LiOH was added, and the mixt. was stirred and heated to 145° under pressure. After dehydration, the product was mixed with 67.8 g azelaic acid and 250 g of a hot aq. soln. contg. 30.2 g LiOH. Addnl. processing steps included heating, dehydrating, and adding diphenylamine octanoate [87787-89-1] as an antioxidant. The resulting grease had a dropping point of 257 at 0° and a dust-noise test value of 92 after 120 s. The resp. values were 232 and 7534 for a similar grease compn. that did not contain the copolymer.

IT 69-72-7D, C10-16 alkyl derivs., alk. **earth metal salts**
RL: USES (Uses)
(**lubricating** grease additives)

RN 69-72-7 HCAPLUS

CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



IC C10M005-14

CC 51-8 (**Fossil Fuels**, Derivatives, and Related Products)
Section cross-reference(s): 38

ST **lubricating** grease antinoise lithium soap; hydrogenated butadiene **styrene** polymer grease; hydroxystearate lithium **lubricating** grease additive; azelate lithium **lubricating** grease additive

IT **Lubricating greases**
(lithium soap-thickened, with high dropping point and improved antinoise properties)

IT **Lubricating** grease additives
(dispersants, polyisobutenylsuccinimide amino derivs., for
antinoise high-dropping-point greases)

IT **Lubricating** grease additives
(thickeners, soaps, lithium, for antinoise high-dropping-point
grease)

IT Phenols, compounds
RL: USES (Uses)
(thiobis-, alk. **earth metal** salts,
lubricating grease additives)

IT **Lubricating** grease additives
(viscosity index improvers, polymers, for antinoise
high-dropping-point greases)

IT 87787-89-1
RL: USES (Uses)
(antioxidants, for **lubricating** greases)

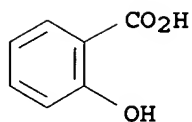
IT **69-72-7D**, C10-16 alkyl derivs., alk. **earth**
metal salts 123-56-8D, polyisobutenyl amino derivs.
7620-77-1 9003-27-4 9003-55-8D, hydrogenated 9010-79-1
9011-14-7 13598-36-2D, polyisobutyl derivs., alk. **earth**
metal salts 18621-94-8 19370-86-6 25038-32-8D,
hydrogenated 37321-03-2 38900-29-7 57855-77-3
RL: USES (Uses)
(**lubricating** grease additives)

L38 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1983:92114 HCAPLUS
DOCUMENT NUMBER: 98:92114
TITLE: Effect of ZnDDF and **detergent**
-dispersants on antiwear properties of motor
oils
AUTHOR(S): Stepina, Vaclav; Havlicek, Vladimir; Chvojka,
Milan; Valdauf, Jiri; Vergos, Thomas
CORPORATE SOURCE: Benzina, K.p., VUPM, Prague, 280 26, Czech.
SOURCE: Ropa a Uhlie (1982), 24(10), 596-609
CODEN: ROUHAY; ISSN: 0035-8231
DOCUMENT TYPE: Journal
LANGUAGE: Czech

AB Antiwear properties of **lubricating** oils contg. Zn dialkyl
dithiophosphates (ZnDDF), **detergents**-dispersants (DD) and
polymer modifiers of viscosity were examd. in the original state and
after heating above the ZnDDF decompn. temp. Strength of the
boundary oil films decreased with increasing ZnDDF decompn. temp.
(i.e., increasing alkyl length, branched alkyls). The DD additives
had no effect on oil antiwear properties. However, a marked
synergistic effect was obsd. in combination with Zn DDF. The
polymethacrylate modifier of viscosity increased the film strength
and decreased wear. Effect of the **styrene**-isoprene
modifier was opposite.

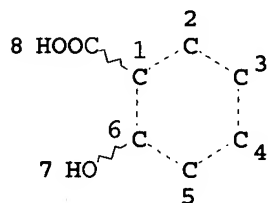
IT **69-72-7D**, alkyl derivs., **calcium** salt
RL: USES (Uses)
(motor oil antiwear properties affected by)

RN 69-72-7 HCAPLUS
CN Benzoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
 ST lubricating oil additive antiwear property
 IT Surfactants
 (calcium sulfonate, motor oil antiwear properties affected by)
 IT Phenols, compounds
 RL: USES (Uses)
 (alkyl, thiobis, calcium salts, motor oil antiwear properties affected by)
 IT Lubricating oil additives
 (detergents-dispersants, motor oil antiwear properties affected by)
 IT Lubricating oil additives
 (viscosity index improvers, motor oil antiwear properties affected by)
 IT 69-72-7D, alkyl derivs., calcium salt 123-56-8D, derivs. 13598-51-1D, derivs., barium salt 15834-33-0D, dialkyl ester, zinc salts
 RL: USES (Uses)
 (motor oil antiwear properties affected by)

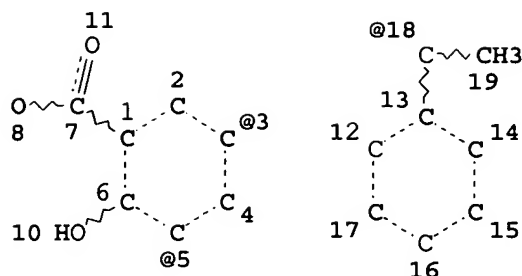
=> d 139 que stat
 L6 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
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 L9 STR



VPA 18-3/5 U
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L10 3407 SEA FILE=REGISTRY L8 AND 1/M
 L12 47 SEA FILE=REGISTRY SUB=L10 SSS FUL L9
 L13 45 SEA FILE=HCAPLUS L12
 L28 1 SEA FILE=REGISTRY 7439-95-4/RN
 L29 1 SEA FILE=REGISTRY 7440-70-2/RN
 L32 210546 SEA FILE=HCAPLUS L28
 L33 362715 SEA FILE=HCAPLUS L29
 L39 11 SEA FILE=HCAPLUS L13 AND (CA OR CALCIUM OR MG OR
 MAGNESIUM OR L32 OR L33 OR EARTH(W)METAL#)

=> d l39 ibib abs hitstr ind 1-11

L39 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:826797 HCAPLUS
 DOCUMENT NUMBER: 139:330375
 TITLE: Manufacture of water dispersions of developer
 for pressure-sensitive recording
 INVENTOR(S): Mori, Takaaki; Tsubushi, Hirofumi; Tsuchiya,
 Osamu
 PATENT ASSIGNEE(S): Sanko Co., Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003300381	A2	20031021	JP 2002-107974	200204

*11 answers from subset
 search (structure
 repeating unit)*

PRIORITY APPLN. INFO.:

JP 2002-107974

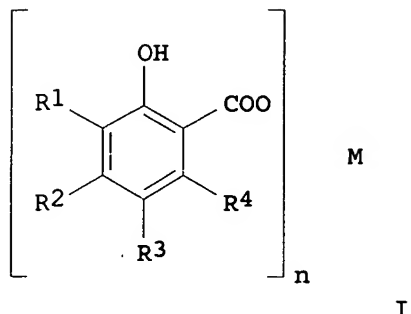
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200204

10

OTHER SOURCE(S):
GI

MARPAT 139:330375



AB The water dispersions of 20-60 wt.% of the developer are manufd. by (1) heating at the temp. $\geq 50^\circ$ stirring a mixt. of 57.5-92.0 wt.% developer mainly contg. a polyvalent metal salt of a salicylic acid deriv. I (R1-4 = H, halo, C1-18 alkyl, cycloalkyl, alkoxy, Ph, aralkyl; adjacent two of R1-4 may form a ring; n = 1-3; M = Mg, Ca, Zn, Al, Fe, Co, Ni, or their basic ion), 1.5-5.0 wt.% dispersing agent, and 7.0-38.0 wt.% water to obtain emulsified dispersions and (2) adding water to them for cooling at the temp. $\leq 30^\circ$. They are simply manufd. for a short time at high productivity.

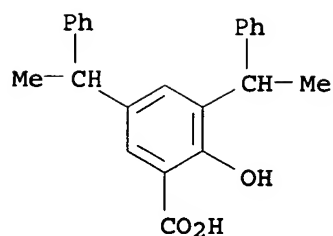
IT 74362-66-6, 3,5-Di(α -methylbenzyl)salicylic acid sodium salt

RL: NUU (Other use, unclassified); USES (Uses)

(dispersant; manuf. of water dispersions of developer for pressure-sensitive recording)

RN 74362-66-6 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM B41M005-155
 CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 ST color developer dispersion pressure sensitive copying paper
 IT Dispersing agents
 (manuf. of water dispersions of developer for pressure-sensitive
 recording)
 IT Copying paper
 (pressure-sensitive; manuf. of water dispersions of developer for
 pressure-sensitive recording)
 IT 53770-52-8, Zinc 3,5-di(α -methylbenzyl)salicylate
 165407-37-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (color developer; manuf. of water dispersions of developer for
 pressure-sensitive recording)
 IT 9002-89-5, PVA 117 74362-66-6, 3,5-Di(α -
 methylbenzyl)salicylic acid sodium salt 139352-17-3, MP 203
 RL: NUU (Other use, unclassified); USES (Uses)
 (dispersant; manuf. of water dispersions of developer for
 pressure-sensitive recording)

L39 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1998:68515 HCAPLUS
 DOCUMENT NUMBER: 128:167177
 TITLE: Preparation of carboxylic acid polyvalent metal
 salts as developers for heat- and
 pressure-sensitive recording materials
 INVENTOR(S): Nakatsuka, Masakatsu; Tanabe, Yoshimitsu
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10025267	A2	19980127	JP 1996-180504	

PRIORITY APPLN. INFO.:

JP 1996-180504

199607
10199607
10

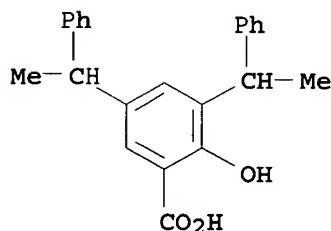
AB Title compds., useful as developers for heat- and pressure-sensitive recording materials (no data), are prepd. by feeding carboxylic acid alkali metal salts or org. amine salts and polyvalent metal compds. resp. into a mixing vessel contg. H₂O at the same time and reacting them. An aq. soln. of 3,5-bis(α-methylbenzyl)salicylic acid sodium salt (I) and an aq. soln. of ZnSO₄·7H₂O were fed into a mixing vessel contg. H₂O at 10 g/min and at 2.5 g/min resp. and mixed at at 35° for 1 h to give 3,5-bis(α-methylbenzyl)salicylic acid zinc salts contg. unreacted 0.4 wt.% I.

IT 74362-66-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

RN 74362-66-6 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, monosodium salt
(9CI) (CA INDEX NAME)



IC ICM C07C065-05

ICS C07B041-10; C07C051-02; C07C059-70; C07C063-04; C07C063-24;
C07C063-36; C07C063-70; C07C065-21; C07C065-24; C07C065-30;
C07C065-34; C07C067-28; C07C069-24; C07C069-80; C07C201-12;
C07C205-57; C08F008-44

CC 23-16 (Aliphatic Compounds)

Section cross-reference(s): 74

ST carboxylate ion exchange polyvalent metal; carboxylic acid
polyvalent metal salt prepn; sodium salicylate reaction zinc
sulfate; zinc salicylate prepn developer recording material

IT Carboxylic acids, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(alkali metal salts; prepn. of carboxylic acid metal salts by
reaction of carboxylic acid salts with polyvalent metal compds.)

IT Carboxylic acids, preparation

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES

(Uses)

(metal salts, polyvalent metal salts; prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT Metals, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(polyvalent; prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT Ion exchange

(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT Dispersing agents

(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds. using dispersants)

IT Electrographic developers

(prepn. of carboxylic acid polyvalent metal salts as developers for heat- and pressure-sensitive recording materials)

IT 2211-98-5, Sodium p-dodecylbenzenesulfonate

RL: NUU (Other use, unclassified); USES (Uses)

(dispersant; prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT 4980-54-5P 7440-66-6DP, Zinc, salt with Me salicylate-4-methylstyrene copolymer, preparation 23239-68-1P, Phthalic acid monobenzyl ester calcium salt 42903-53-7P 53770-52-8P, 3,5-Bis(α-methylbenzyl)salicylic acid zinc salt 73836-39-2P 79448-62-7P 97638-51-2P 97931-32-3P 110636-11-8P 114348-78-6P 115723-75-6P 117259-59-3P 118092-82-3P 123384-85-0DP, copolymer with zinc 124191-40-8P 137779-37-4P 143458-74-6P 153296-77-6P, 4-n-Octyloxycarbonylaminosalicylic acid zinc salt 158272-17-4P 161044-23-1P 165811-32-5P 173670-24-1P 202917-80-4P 202917-81-5P 202917-82-6P 202917-84-8P 202917-90-6P 202917-91-7P 202917-92-8P 202917-93-9P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT 537-20-2 557-34-6, Zinc acetate 2046-84-6 3686-66-6 3847-57-2 5138-68-1 7646-85-7, Zinc chloride, reactions 7733-02-0, Zinc sulfate 10043-52-4, Calcium chloride, reactions 10220-74-3 16518-19-7, 1-Naphthoic acid potassium salt 17264-53-8 17264-75-4 24590-86-1, Phthalic acid monobenzyl ester sodium salt 50961-33-6 56442-48-9 59413-17-1 74362-66-6 94088-58-1 111945-18-7 121032-87-9 141504-69-0 173194-67-7 202917-54-2 202917-59-7 202917-63-3 202917-69-9 202917-71-3 202917-72-4 202917-73-5 202917-74-6 202917-75-7 202917-76-8 202917-77-9 202917-78-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

IT 202917-55-3P

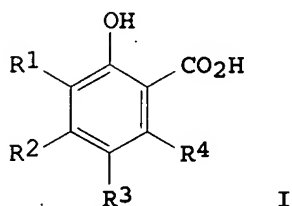
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of carboxylic acid metal salts by reaction of carboxylic acid salts with polyvalent metal compds.)

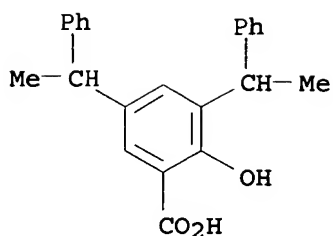
L39 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:528467 HCAPLUS
DOCUMENT NUMBER: 119:128467
TITLE: Pressure-sensitive copying developer sheets
containing aluminum and calcium salts
of salicylic acid derivatives
INVENTOR(S): Ito, Tsunashige; Iwakura, Ken
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05104851	A2	19930427	JP 1991-266281	19911015
PRIORITY APPLN. INFO.:				19911015

OTHER SOURCE(S): MARPAT 119:128467
GI



AB The title developer sheets contg. Al salts of salicylic acids I
(R1-4 = H, alkyl, aryl) and Ca salts of I in the same
layer are claimed. The developer sheets provided
plasticizer-resistant high-d. images.
IT 69101-90-2
RL: USES (Uses)
(pressure-sensitive copying developer sheets contg. aluminum salt
and)
RN 69101-90-2 HCAPLUS
CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, calcium salt (2:1)
(9CI) (CA INDEX NAME)



● 1/2 Ca

IC ICM B41M005-155
 CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST pressure sensitive copying salicylate developer; aluminum salicylate pressure sensitive copying; **calcium** salicylate pressure sensitive copying
 IT Copying paper
 (developer sheets, salicylic acid deriv. aluminum salts and **calcium** salts for)
 IT 69101-90-2
 RL: USES (Uses)
 (pressure-sensitive copying developer sheets contg. aluminum salt and)
 IT 53782-17-5
 RL: USES (Uses)
 (pressure-sensitive copying developer sheets contg. **calcium** salt and)

L39 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1993:505986 HCAPLUS
 DOCUMENT NUMBER: 119:105986
 TITLE: Pressure-sensitive copying developer sheets containing zinc salts and **calcium** salts of salicylic acid derivative
 INVENTOR(S): Ito, Tsunashige; Iwakura, Ken
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

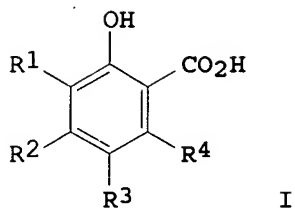
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05104850	A2	19930427	JP 1991-266280	19911015

PRIORITY APPLN. INFO.: JP 1991-266280

199110

15

GI



AB The title developer sheets contg. Zn salts of salicylic acids I (R1-4 = H, alkyl, aryl) and Ca salts of I in the same layer are claimed. The developer sheets provided heat- and humidity-stable high-d. images.

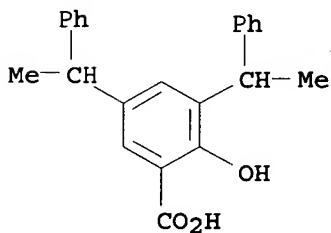
IT 69101-90-2

RL: USES (Uses)

(pressure-sensitive copying developer sheets contg. zinc salt and)

RN 69101-90-2 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, calcium salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Ca

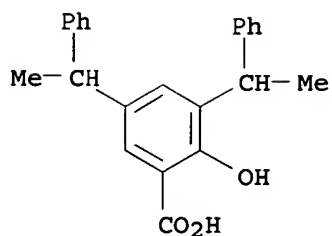
IT 74362-66-6

RL: USES (Uses)

(salt exchange of, zinc and calcium salt from, pressure-sensitive copying developer sheets contg.)

RN 74362-66-6 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, monosodium salt (9CI) (CA INDEX NAME)



IC ICM B41M005-155
 CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST pressure sensitive copying salicylate developer; **calcium** salicylate pressure sensitive copying; zinc salicylate pressure sensitive copying
 IT Copying paper
 (developer sheets, salicylic acid deriv. zinc salts and **calcium** salts for)
 IT 53770-52-8, 3,5-Bis(α-methylbenzyl)salicylic acid zinc salt.
 RL: USES (Uses)
 (pressure-sensitive copying developer sheets contg. **calcium** salt and)
 IT 69101-90-2
 RL: USES (Uses)
 (pressure-sensitive copying developer sheets contg. zinc salt and)
 IT 74362-66-6
 RL: USES (Uses)
 (salt exchange of, zinc and **calcium** salt from, pressure-sensitive copying developer sheets contg.)

L39 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1993:212682 HCAPLUS
 DOCUMENT NUMBER: 118:212682
 TITLE: Preparation of substituted salicylic acid **calcium** salts and their dispersions for recording materials
 INVENTOR(S): Iwakura, Ken; Satomura, Masato; Ito, Tsunashige
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04360849

A2

19921214

JP 1991-134442

199106
05

PRIORITY APPLN. INFO.:

JP 1991-134442

199106
05

AB The title compds, useful as electron acceptors for recording materials (no data), are prepd. by treatment of substituted salicylic acids with CaCO₃ in mixts. of H₂O and org. solvents with b.p. ≤200°. Dispersions of the title compds.

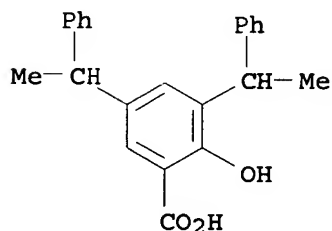
(vol.-av. particle size ≤4 μm) are prepd. by emulsifying the reaction mixts. with water-sol. polymers, followed by removing the org. solvents by heating. 3,5-Bis(α-methylbenzyl)salicylic acid (34 g) was treated with 5.5 g CaCO₃ in H₂O-MePh mixt. at 70° for 1 h to give 35.7 g corresponding Ca salt, vs. unsuccessful salt formation, without MePh.

IT 69101-90-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as electron acceptor, for recording materials)

RN 69101-90-2 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, calcium salt (2:1)
(9CI) (CA INDEX NAME)



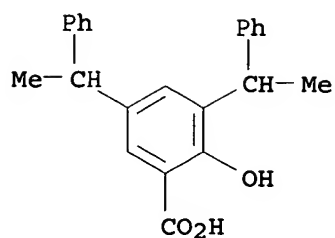
● 1/2 Ca

IT 74362-66-6, Sodium 3,5-bis(α-methylbenzyl)salicylate

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with calcium carbonate)

RN 74362-66-6 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, monosodium salt
(9CI) (CA INDEX NAME)



● Na

IC ICM C07C065-05
ICS C07C051-41; C07C051-42; C07C065-105

CC 25-17 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74

ST **calcium** salicylate prepn recording; water org solvent
salicylate prepn; electron acceptor salicylate prepn recording;
emulsifier polymer **calcium** salicylate recording

IT Recording materials
(electron acceptors for, **calcium** salicylates as)

IT Solvents
(water-org. solvent mixts., in salt formation of salicylic acids)

IT Emulsifying agents
(water-sol. polymers, for **calcium** salicylates)

IT 7732-18-5P, Water, preparation
RL: PREP (Preparation)
(cosolvent with toluene or xylene, in salt formation of salicylic acids)

IT 108-88-3P, preparation 1330-20-7P, preparation
RL: PREP (Preparation)
(cosolvent with water, in salt formation of salicylic acids)

IT 9002-89-5, PVA 110
RL: RCT (Reactant); RACT (Reactant or reagent)
(emulsifier, for **calcium** salicylates)

IT **69101-90-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as electron acceptor, for recording materials)

IT 53721-15-6, 3,5-Bis(α-methylbenzyl)salicylic acid
74362-66-6, Sodium 3,5-bis(α-methylbenzyl)salicylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with **calcium** carbonate)

L39 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:500974 HCAPLUS

DOCUMENT NUMBER: 117:100974

TITLE: Triboelectricity-providing materials using
salicylic acid derivative metal salt

INVENTOR(S): Hagiwara, Tomoe; Tomita, Masami; Kato, Koichi;
Minamitani, Toshiki

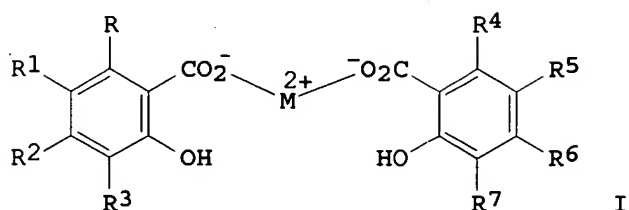
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Japanese
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03294869	A2	19911226	JP 1990-98192	19900413
PRIORITY APPLN. INFO.:			JP 1990-98192	19900413

GI



AB The title materials, contain ≥ 1 metal-contg. compd. I (2 of each R, R1-3 and R4-7 are PhCHMe, the others are H, C1-18 alkyl, or alkoxy; M = Ca, Ba, Zn, Mg) at least on the surfaces. The material gives toners a stable pos.-charging property, and development using the materials provides high quality images in continuously repeated copying and under varied conditions. Thus, ferrite particles were coated with I (R1 = R3 = R5 = R7 = PhCHMe, R = R2 = R4 = R6 = H, M = Ca), and the resulting carrier was mixed with a toner to give a developer.

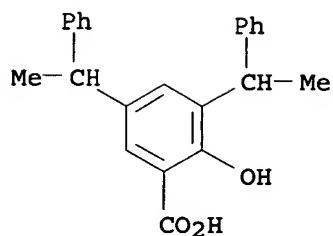
IT 69101-90-2 141241-36-3

RL: USES (Uses)

(triboelec. material contg., for electrophotog.)

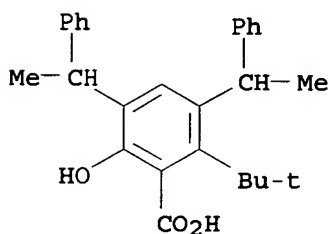
RN 69101-90-2 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, calcium salt (2:1)
 (9CI) (CA INDEX NAME)



● 1/2 Ca

RN 141241-36-3 HCAPLUS
 CN Benzoic acid, 2-(1,1-dimethylethyl)-6-hydroxy-3,5-bis(1-phenylethyl)-
 , barium salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Ba

IC ICM G03G009-113
 ICS G03G015-08
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 ST triboelec materials metal salicylate; electrophotog toner triboelec
 material
 IT Ferrite substances
 RL: USES (Uses)
 (coated with metal salicylate deriv., triboelec. material, for
 electrophotog.)
 IT Electrophotographic developers
 (toners, triboelec. material for, contg. metal salicylate)
 IT 69101-90-2 141241-36-3 141259-78-1
 RL: USES (Uses)
 (triboelec. material contg., for electrophotog.)

L39 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:224734 HCAPLUS

DOCUMENT NUMBER: 116:224734

TITLE: Electrostatographic developer toner containing

organic metal compound as charge-controlling agent and its use for image-forming method

INVENTOR(S): Kato, Koichi; Tomita, Masami; Hagiwara, Tomoe; Minamitani, Toshiki

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

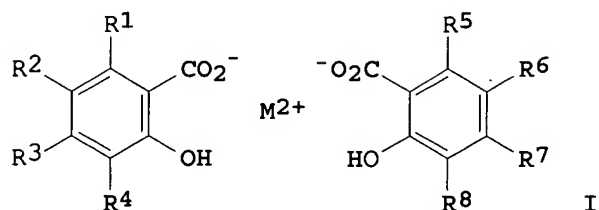
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 03294868	A2	19911226	JP 1990-98516	19900413
PRIORITY APPLN. INFO.:			JP 1990-98516	19900413

GI

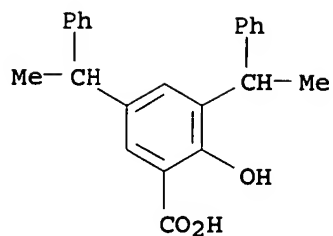


AB The toner contains a binder resin, a coloring agent, and neg. charge-controlling agent [I; 2 of R1 - R4 = CH(CH₂)(Ph); other R1 - R4 = H, C1-18 alkyl, alkoxy; 2 of R5 - R8 = CH(CH₂)(Ph); other R5 - R8 = H, C1-18 alkyl, alkoxy; M = Ca, Ba, Zn, Mg]. Images are formed by supplying the thin-filmed toner to latent images using 1-component development method. The toner showed stable charging property and durability.

IT 69101-90-2 141241-36-3
RL: USES (Uses)
(charge-controlling agent, electrostatog. developer toner contg.)

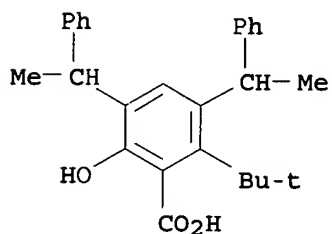
RN 69101-90-2 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, calcium salt (2:1)
(9CI) (CA INDEX NAME)



● 1/2 Ca

RN 141241-36-3 HCAPLUS
 CN Benzoic acid, 2-(1,1-dimethylethyl)-6-hydroxy-3,5-bis(1-phenylethyl)-
 , barium salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Ba

IC ICM G03G009-097
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 ST electrostatog toner org metal charge controlling
 IT Electrophotographic developers
 (toners, contg. org. metal compds. as charge-controlling agents,
 with durability)
 IT 69101-90-2 141241-36-3 141259-78-1
 RL: USES (Uses)
 (charge-controlling agent, electrostatog. developer toner contg.)

L39 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1982:36256 HCAPLUS
 DOCUMENT NUMBER: 96:36256
 TITLE: Halogen-containing resin compositions
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

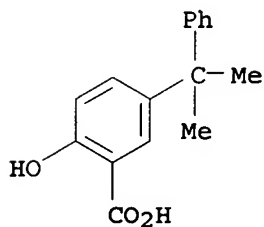
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56112955	A2	19810905	JP 1980-17040	19800213
PRIORITY APPLN. INFO.:			JP 1980-17040	A 19800213

AB PVC [9002-86-2] Is stabilized with zinc 3,5-bis(α -methylbenzyl)salicylate (I) [71973-86-9], zinc 5-(α -methylbenzyl)salicylate [80172-19-6], or zinc 5-(α , α -dimethylbenzyl)salicylate [71973-87-0]. Thus, a sheet contg. SX11 100, DOP 50, Ca stearate 0.6, an epoxidized soybean oil 3, and I 0.3 part was blackened after 50 min at 180°, compared with 15 min for using Zn stearate in place of I.

IT 71973-87-0
RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, for PVC)

RN 71973-87-0 HCAPLUS

CN Benzoic acid, 2-hydroxy-5-(1-methyl-1-phenylethyl)-, zinc salt (9CI)
(CA INDEX NAME)



●x Zn

IC C08L027-06; C08K005-09

CC 37-6 (Plastics Manufacture and Processing)

ST PVC heat stabilization; methylbenzylsalicylate zinc heat stabilizer; salicylate zinc heat stabilizer

IT Heat stabilizers
(zinc methylbenzylsalicylates, for PVC)

IT 9002-86-2
RL: USES (Uses)
(heat stabilizers for, zinc methylbenzylsalicylates as)

IT 53770-52-8 71973-87-0 80172-19-6
RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, for PVC)

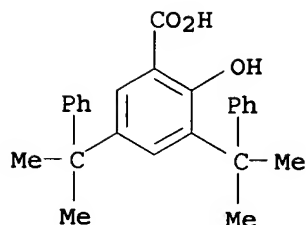
L39 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1980:559223 HCAPLUS
DOCUMENT NUMBER: 93:159223
TITLE: Pressure-sensitive copying color developer ink
compositions
INVENTOR(S): Tada, Tomonori; Nakanishi, Akira
PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55034262	A2	19800310	JP 1978-107393	197808 31
JP 61006796	B4	19860228	JP 1978-107393	A 197808 31

PRIORITY APPLN. INFO.:

AB Pressure-sensitive copying colored developer coating compns. contain
(1) ≥ 1 metal salt of a phenolic OH group-contg. arom.
carboxylic acid; (2) ≥ 1 metal compd. pigment selected from
oxides, hydroxides, and carbonates of Zn, Mg, and
Ca; (3) colloidal silica whose bulkiness (JIS K5101) is
 ≥ 10 mL/g; (4) nitrocellulose (degree of nitration 10.7-11.4%,
viscosity measured by Hercules Powder method ≤ 20 s), and (5)
a mixt. of alc. (EtOH and/or iso-PrOH) 50-95 and nonalcoholic
solvent (such as esters) 5-50 wt.%. Thus, 3,5-di(α , α -
dimethylbenzyl)salicylic acid Zn salt 20, ZnO 3, Aerosil No. 200
(bulkiness 16 mL/g) 3, nitrocellulose (degree of nitration
10.7-11.2%; viscosity 0.25 s) 12, EtOH 35, iso-PrOH 2, and EtOAc 25
parts were mixed well to give a color developer ink having excellent
stability, coatability, printability, and flowability. The ink did
not swell rubber plates (used for printing) excessively.

IT 74705-40-1
RL: USES (Uses)
(pressure-sensitive copying color developer inks contg.)
RN 74705-40-1 HCAPLUS
CN Benzoic acid, 2-hydroxy-3,5-bis(1-methyl-1-phenylethyl)-,
monopotassium salt (9CI) (CA INDEX NAME)



● K

IC C09D011-00
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 ST pressure copying color developer ink; salicylic acid deriv color developer
 IT Copying paper
 (pressure-sensitive, color-developer ink compns. for)
 IT 64-17-5, uses and miscellaneous 67-63-0, uses and miscellaneous
 141-78-6, uses and miscellaneous 1309-42-8 1314-13-2, uses and
 miscellaneous 7631-86-9, uses and miscellaneous 9004-70-0
 41699-26-7 41699-32-5 53769-90-7 53770-51-7 74705-40-1
 RL: USES (Uses)
 (pressure-sensitive copying color developer inks contg.)

L39 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1980:471303 HCAPLUS
 DOCUMENT NUMBER: 93:71303
 TITLE: Separating zinc or calcium
 3,5-dialkylsalicylates from their aqueous slurry
 INVENTOR(S): Saito, Toranosuke
 PATENT ASSIGNEE(S): Sanko Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55015434	A2	19800202	JP 1978-87719	19780720
JP 61015865	B4	19860426		
PRIORITY APPLN. INFO.:			JP 1978-87719	A 19780720

AB H2O-insol. Ca and Zn 3,5-bis(α-methylbenzyl)- (I)
 and Zn 3-phenyl-5-(α,α-dimethylbenzyl)- and

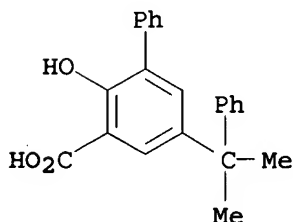
3-cyclohexyl-5-(α -methylbenzyl)salicylate, prepd. from the corresponding Na salts and ZnSO_4 or CaCl_2 in H_2O , were sepd. from their aq. slurry after heating at $56-80^\circ$ with or without added org. solvents (e.g., EtOAc). This increased the particle size. Thus, 220 g $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ in 2 L H_2O was treated slowly with 368 g Na 3,5-bis(α -methylbenzyl)salicylate in 3 L H_2O , heated slowly with 0.5 g HCHO -Na naphthalenesulfonate condensate to 64° over 1 h, kept at 64° for 30 min, and the mixt. filtered at 35° to give granular Zn salt I contg. 15% H_2O and 0.01% SO_4^{2-} .

IT 74362-67-7P 74362-68-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 74362-67-7 HCAPLUS

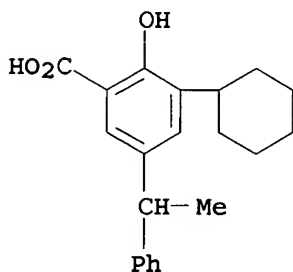
CN [1,1'-Biphenyl]-3-carboxylic acid, 2-hydroxy-5-(1-methyl-1-phenylethyl)-, zinc salt (2:1) (9CI) (CA INDEX NAME)



● 1/2 Zn

RN 74362-68-8 HCAPLUS

CN Benzoic acid, 3-cyclohexyl-2-hydroxy-5-(1-phenylethyl)-, zinc salt (2:1) (9CI) (CA INDEX NAME)

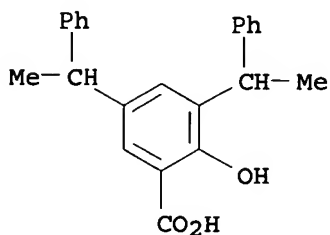


● 1/2 Zn

IT 74362-66-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with zinc sulfate or calcium chloride)

RN 74362-66-6 HCAPLUS
 CN Benzoic acid, 2-hydroxy-3,5-bis(1-phenylethyl)-, monosodium salt
 (9CI) (CA INDEX NAME)



● Na

IC C07C065-01; C07C051-43
 CC 25-17 (Noncondensed Aromatic Compounds)
 ST alkylsalicylate zinc **calcium** sepn; zinc dialkylsalicylate
 sepn; **calcium** dialkylsalicylate sepn
 IT 53770-52-8P **74362-67-7P 74362-68-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 IT 7733-02-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with sodium bis(methylbenzyl)salicylate)
 IT **74362-66-6**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with zinc sulfate or **calcium** chloride)

L39 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1978:538389 HCAPLUS
 DOCUMENT NUMBER: 89:138389
 TITLE: Heat-sensitive recording material
 INVENTOR(S): Oeda, Yoshitaka; Murakami, Takeshi; Hayashi,
 Hiroo; Nakamura, Teruo
 PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan
 SOURCE: Ger. Offen., 25 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2800485	A1	19780713	DE 1978-2800485	197801 05
DE 2800485	C2	19870820		
JP 53086229	A2	19780729	JP 1977-980	

				197701 07
JP 61056118	B4	19861201		
US 4168845	A	19790925	US 1978-867342	
				197801 05
FR 2376753	A1	19780804	FR 1978-350	
				197801 06
FR 2376753	B1	19841012		
GB 1600781	A	19811021	GB 1978-543	
				197801 06
US 4311758	A	19820119	US 1980-211780	
				198012 01
PRIORITY APPLN. INFO.:		JP 1977-980	A	197701 07
		US 1978-867342	A1	197801 05
		US 1979-12434	A1	197902 15

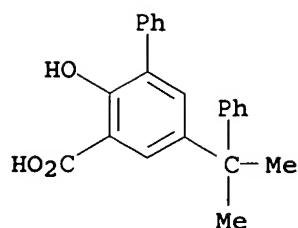
AB In the recording of information at high speed by a stylus or head heated by a pulsed elec. current, involving color formation by fusion or sublimation of a dye precursor and an acid org. or inorg. coreagent (U.S. 3,859,112; Ger. 2,327,135; CA 81: 19271h) smudging of the head is minimized by using a pigment having an oil absorption capacity of 100-400 mL/100 g. The pigment, such as calcined diatomaceous earth of Mg aluminosilicate, may be added to the 2-10 g/m² recording layer at 10-65% or as a 1-10 g/m² top coating. Various binders 15-30% may be used in the coatings, and a matting or light-stabilizing agent may be added, and a fusible substance, such as stearamide or 2,6-diisopropylnaphthalene, may be used as a solvent. Thus, 2 dispersions in 5% aq. Me cellulose soln. were prepd. and milled to 3-μ particle size: (1) 2'-phenylamino-3'-methyl-6'-(N-ethyl-N-p-tolylamino)fluoran 25, stearamide 40, and the Me cellulose soln. 200 parts; (2) Bisphenol A 100, montan ester wax 25, and the Me cellulose soln. 600 parts. One part of each were mixed with 5 parts of a 10% aq. dispersion of 2-110 nm SiO₂, having an oil absorption of 200 mL/100 g, and coated at 6 g solids/m² on 50 g/m² paper. In a thermocopier a test image was recorded at 19 V with an image d. of 0.83, without contamination of the 5 dots/mm recording head.

IT 67690-94-2
RL: USES (Uses)

(heat-sensitive color-forming compns. contg. silica and, for electrorecording with reduced recording head smudging)

RN 67690-94-2 HCAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2-hydroxy-5-(1-methyl-1-phenylethyl)-, zinc salt (9CI) (CA INDEX NAME)



●x Zn

IC B41M005-18
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 ST thermog recording head smudging; silica thermog recording
 IT Electrothermography
 (heat-sensitive color-forming compns. contg. silica for, for reduced recording head smudging)
 IT Recording
 (electro-, heat-sensitive color-forming compns. contg. silica for, for reduced recording head smudging)
 IT 7631-86-9, uses and miscellaneous
 RL: USES (Uses)
 (heat-sensitive color-forming compns. contg. dye precursor, color developer and, for electrorecording with reduced recording head smudging)
 IT 557-05-1 24157-81-1
 RL: USES (Uses)
 (heat-sensitive color-forming compns. contg. dye precursor, color developer, silica and, for electrorecording with reduced recording head smudging)
 IT 80-05-7, uses and miscellaneous 1552-42-7 59129-79-2
 67690-94-2
 RL: USES (Uses)
 (heat-sensitive color-forming compns. contg. silica and, for electrorecording with reduced recording head smudging)

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